STUDY ON HANDWRITING FEATURES OF AMBIDEXTROUS PERSONS

A

THESIS SUBMITTED TO



UTTAR PRADESH IN FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

DOCTOR OF PHILOSOPHY IN FORENSIC SCIENCE

BY

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GALGOTIAS UNIVERSITY UTTAR PRADESH [2022]

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IN

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APPROVAL SHEET

This thesis entitled "Study on Handwriting Features of Ambidextrous Persons" author by Siddiqui Mohammed Khaja Moinuddin approved for the degree of Doctor of Philosophy in Forensic Science.

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CANDIDATE'S DECLARATION

I hereby certify that the work which is being presented in the thesis, entitled "Study on Handwriting Features of Ambidextrous Persons" in fulfillment of the requirements for the award of the degree of Doctor of Philosophy in Forensic Science, submitted in (School of Basic and Applied Sciences) Galgotias University, Greater Noida is an authentic record of my own work carried out during a period from January 2018 to June 2022 under the supervision of Professor (Dr.) Arvind Kumar Jain and Co-supervisors Dr. Suneet Kumar and Dr. Sayeed Ahmed.

The matter embodied in this thesis has not been submitted by me for the award of any other degree of this or any other University/Institute.

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This is to certify that the above statement made by the candidate is correct to the best of our knowledge.

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ABSTRACT

Handwriting recognition is a fascinating and convincing piece of writing because everybody has his or her own writing style in this world. The most challenging part is determining the unique qualities of each word's handwriting. It is observed that Predicting and implementing handwriting paragraph feature data is difficult, therefore data pre-processing is required. Pre-processing, differentiation, description, preparation, identification and post-processing are some important steps involved in handwritten character recognition. For implementation, Python and the deep learning programming language were used.

Hand writing recognition is an important procedure that enables handwritten inputs, including touch screen, papers, photographs and other devices, to be gathered and understood. The pictures of written texts in optical image processing are named as "off line." It is easier to describe the "on-line" behaviour of a pen's tip on a pen-based gadget since more options are available. The key method of recognition of optical character is the handwriting detection.

A technique involving CNN-based data set removal from an image and algebraic fusion of distinct words in images to categorize for trained in different sets of edges, prepared by feature selection applied to the original CNN feature set is designed. In the proposed work Firstly, the handwriting features of ambidextrous and nonambidextrous persons are classified and implemented. Secondly, predicted the images of handwriting features of ambidextrous and non-ambidextrous persons. Thirdly analysed the images data of handwriting features of ambidextrous and nonambidextrous persons with each line of paragraph.

The purpose of this study is to determine whether the left-hand side can correctly pronounce words when compared to the right-hand side. The dataset is split into the exercise set (70%) and the validation set (30%). Different classifiers were evaluated, and four algorithms were implemented for training and testing or model

assessment. The photos with edges have been pre-processed. To classify each line of handwriting paragraph, we used the convolution neural network approach. The goal of this project is to explore further the challenge of categorizing manual texts and converting manual text to digital formats. The findings of the experiments suggest that a fusion of categorization images can produce a descriptive word.

DEDICATED TO MY PARENTS

Late Mohammed Rafuddin Siddigu مرحوم محمد رفى الدين صديقى



Late Rehana Sultana Siddiqui

مرحومه ريحانه سلطانه صديقى



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(Siddiqui Mohammed Khaja Moinuddin)

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LIST OF RESEARCH PUBLICATIONS

{1} Siddiqui Mohammad Khaja Moinuddin, Dr. Suneet Kumar, Prof. Dr. Arvind Kumar Jain and Dr. Sayeed Ahmed

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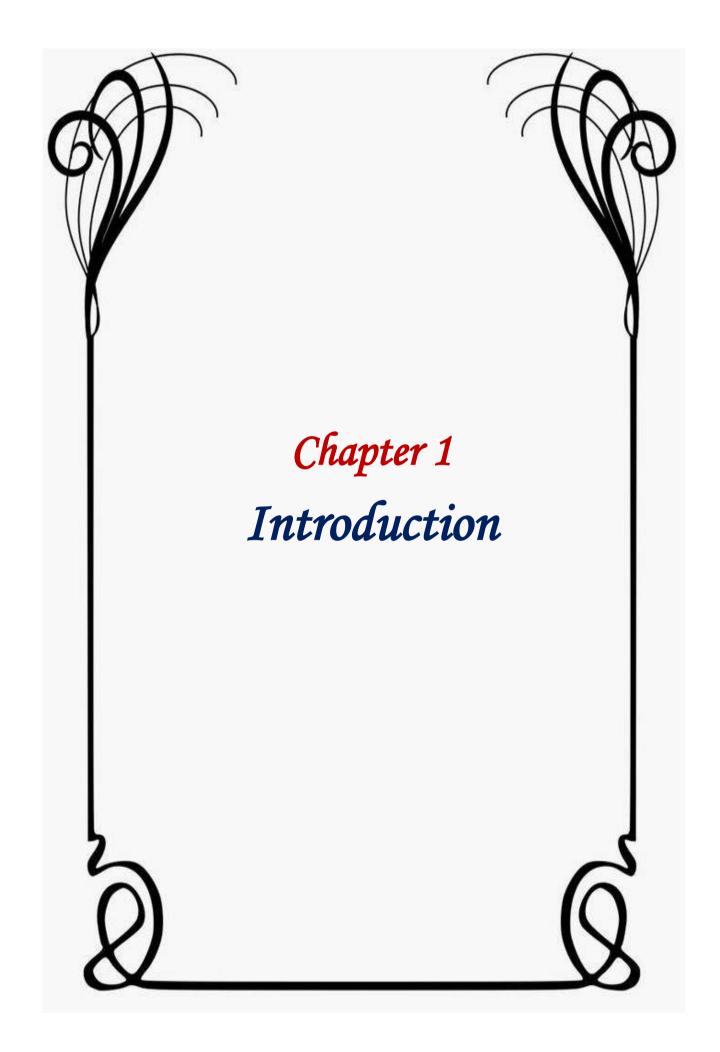
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LIST OF ABBREVIATIONS

OCR	Optical character recognition
HCR	Handwritten character recognition
PCR	Printed character recognition
ML	Machine learning
Hog	Histogram of Oriented Gradients
HMM	Hidden markov language
Pda	Personal digital assistant
fMRI	Functional Magnetic resonance imaging
MRI	Magnetic resonance imaging
ANN	Artificial neural network
NLP	Natural language processing
HTR	Handwritten text recognition
CNN	Convolutional neural network
AHCD	Advance healthcare derivative
DL	Deep Learning



CHAPTER-1 INTRODUCTION

1.1 Introduction

Handwriting also called as brain writing is a helpful way to recognize the characteristic personality characteristics of an individual. Handwriting analysts also called graphologists will look at the handwriting of a person to predict the character traits of the author. One indispensable branch, from the beginning of forensic science and its use in criminal investigation, has achieved its notable goal of recognizing the authorship of handwriting as well as the authenticity of documents. Precisely, the branch of review of the text in issue includes the solicitation of scientific recommendations and techniques for the resolution of contested paper problems. In general, a writer tends to experiment to establish his own handwriting characteristics and as the writer continues to write extensively, the writer will gain similarity either to the copybook model or to any perceived model in this process. Handwriting may be a deliberate act, but the actual creation of every letter and word is almost accidental because of the repetitive usage so that the writer represents much of his thought ions on the topic instead of on the written process. Somehow, the brain works in a feed-forward way as a scheduling series of instinctive strokes.

Thus, handwriting becomes an unconscious habit, as much a component of the person as any person's other natural mannerisms or behaviours. Handwriting is affected by perceptive representation and the capacity of the writer to replicate a copy booking type. It has both a physiological and psychological connection within the brain, i.e., that it is a deliberate act, but then the perceptible creation of every word and letter becomes almost instinctive due to its repeated practice. The handwriting individuality makes it a type of physical proof and there are some basic principles to recognize handwriting. Numerous factors influence a person's handwriting, with each aspect contributing to the author's final type, styles, and features. In many countries, the handwriting of many signatures is symbolic in nature and consists not of individual letters, but of symbolic types or ideograms. The idea is emphasized that the writer will conduct the letters learned in a particular manner when he or she gets acquainted with

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those letter patterns consistent through his/her learning method. It must be understood that of learning process of writing is subtly different from or different from the copybook model, which not only offers the author a new way of forming letters but also maintains and passes them on to other authors. One explanation for this is that authors, i.e., their area or country, are distributed in a different demographic way. Indeed, each country has its own education mechanism that enables the transfer of manuals as lessons [1].

The identification of handwritten texts is a technique nowadays very important for this world. We have relied on the writing of our hands to contribute to errors before we apply this technique properly. It's a daunting job to securely store and access physical data. Modern technology helps people to save data over computers, through which data can be stored, handled and retrieved much easier. Moreover, the data is also highly reliable. The Google Lens is an example of the software of hand-written text recognition. Handwritten papers are easy to comprehend for people because we have the capacity to read. Deep learning and artificial intelligence may also be used to induce the machines with the same ability. The research that solves such a problem is called the OCR or sometimes called the identification of the optical character. It is a device used for translating electronic and image documents for machine readability into digital text. Some features such as the histogram of directed gradients and many techniques such as image recognition, character recognition, facial detection, etc. have been offered over the last couple of decades, which are used to extract important characteristics. OCR is also two versions, the smart hand-written recognition HCR and the PCR. We need more identification capacity because of the various handwriting types of humans. Many times, one person's writing style varies, as he writes many times. OCR is furthermore distinguished by the acquisition of documents into two types: Offline and Online Recognition Systems. The offline framework deals with texts obtained previously written by different input methods. Writing is remembered simultaneously in the online recognizing system [2].

Ambidexterity person means that both hands are equally trained. It may also mean that both hands can be used at the same time. Just 1 per cent of the term population according to the report is ambidexterity. In his autobiography Nikola Tesla wrote about ambidextrousness. Therefore, it is an extremely exceptional talent. However, it is astonishing that there were so few great performers and historical individuals remaining. Leonardo da Vinci, Dr. Rajendra Prasad, Nikola Tesla, Benjamin Franklin, and LeBron James are well-known persons who possess the same skills as Albert Einstein, the first President of India, Dr. Rajendra Prasad, and Albert Einstein. Nikoa Tesla, the inventor of the AC current and the guy who created so efficient and successful electrical engines the world today still uses the Tesla designs. A person's individual handwriting has been instinctively noted for a very long time. Over many decades, methods for human handwriting knowledge have been developed. But it is important to research the quantitative assessment of the discriminatory writing authority, particularly with regard to the acceptation of evidence by courts by the examiners who were contested. Handwriting is not an answer by external environmental influences. Because of the intervals of neural and neuromuscular propagation, write-out would be too deliberate if the reaction were continuously assisted. Deep learning techniques are successfully applied in different fields such as imaging, voice recognition, medical pictorial detection, face detection, satellite pictures, traffic signs recognition and pedestrian detection, etc. The effects of profound teaching are also popular and, in some cases, human experts have obtained stronger results in recent years. Most issues have also been experimented with the last few years with profound teaching methods in order to enhance current findings. Deep learning-based architectures, such as convolutional neural networks, deep networks or recurrent neural networks, have been implemented in recent years. The whole architecture has demonstrated its expertise in numerous fields. Character recognition is one area of comprehensive experimentation in ML techniques [3].

Deep learning techniques are made up of several hidden layers, each of which has numerous neurons that measure the necessary weights for the deep network. To calculate these weights, a large amount of computational power is necessary, as well as a powerful machine, which was not readily available at the time. Since then, the researchers have focused on developing a system that uses less power by converting photos into feature vectors. Many strategies for extracting features, such as HOG, have been presented in recent decades, and many others have been used as prominent extraction methods in a variety of issues, including picture identification, character recognition, facial detection, and so on.

Feature extraction is a dimension reduction approach that creates a feature vector from the important aspects of a huge image. These features are created and clearly stated by the scholarly community. The stability and efficiency of these features are determined by the competence and experience of each researcher. In some situations, researchers may overlook essential aspects while extracting characteristics from images, resulting in a significant classification error. The process of creating and designing functionality for a specific issue is inverted and transformed into a process of determining the best functions for the problem. Deep understanding. To automatically extract features, a convolutional neural network comprises numerous convolutional layers. Most models extract the characteristics just once, but in the case of profound learning patterns, several convolutional layers are used to extract various discriminating features. This is one of the reasons why deep learning models are so popular. In deep-feed forward, the function is computed automatically with various buried layers Neural Networks [4]

1.2 Background of the Study

Handwritten character identification is a branch of pattern recognition research. A computer that recognizes manual writing is stated to be capable of acquiring characters, detecting them, and converting them into machine-encoded form in papers, images, touchscreens, and other sources. It is utilized in optical character identification and more complex smart character recognition systems.

Nowadays, the majority of these systems utilize deep learning methods such as neural networks. ML is a psychologically and biologically influenced artificial intelligence firm that is suitable for solving a wide range of problems by learning from a collection of data. A supervised ML model is given instances of data that are unique to a problem domain and a response to the problem for each case. When the learning process is complete, the model can not only provide answers to the information it has gathered, but it can also deliver high accuracy to previously unseen data.

Neural networks are the building blocks of ML models. Its goal is to mimic the learning process of an animal or human brain system. They are a strong learning model that aids in the automation of jobs when a human's judgment takes far too long or is wrong. A neural network can generate findings fast and recognize similarities between visible instances of data that humans cannot see. We chose a neural network for use in an Android app that recognizes attributes manually typed on the device's

touch screen from device and system pictures. As this text obtains the information given, the neural network was created at a low level without the use of libraries to enhance the operation. This allows us to evaluate the output of neural networks in the given problem and provide network source code that can be utilized for a variety of classification problems. The optimization procedure is a subset of a complicated OCR or ICR system that could be extended in the future [5].

1.2.1 Handwriting

Handwriting is performed with a write tool in the hand, such as a pencil or pencil. Printing and cursive manuscripts vary from formal calligraphy or typing. Every individual can be used to check the writer of a text because of its special and different hand writing. Loss of an individual's handwriting is also the result or symptom. The inability to produce clear and reliable manuscripts is also known as dysgraphy.

A pencil, pen, digital style or other device is needed for handwriting. Art, handwriting skills are called penitential skills. The script is called manuscript, preceded by the following letter. Form of manuscripts or handwriting in which letters are separated. is handwriting. If an expert in handwriting recognizes a signature like the subject signature, this could indicate that one of the signatures is a copy of another based on a document track, copy or scan.

Handwriting can change at any time, but handwriting is normally fairly consistent, from early adulthood to early age. However, teens and people who reach old age are more likely to change their handwriting over time. The former group is focused on a lack of improvement of handwriting and the latter group on the fact that a general degradation of the skills associated with age will take place. There has been nothing on the development of handwriting in teenagers, which ranges between 10 and late adolescents. By the time the majority of authors reach the age of about 10, a decent degree of fluency and pace was achieved in handwriting production. But that's not to suggest that these authors avoid developing; far from it, for once they have mastered the essential elements of the art, it is then feasible for the writer to exploit the method for their purposes, rather than to research the fundamental elements of tennis strokes, and then to improve and perfect them to suit your own athletic capabilities. Hand written can grow in the teenage age by incorporating types and letterforms that were not taught but introduced new features for a variety of reasons – ranging from parental instruction,

to hand-writing, such as the speed and legibility of the handwriting. For a variety of reasons, hand-writing can develop. It is during the years of adolescence that an individual's hand writing passes through some of the most transformative periods, and becomes more cohesive and more individual on the one hand. The handwriting of children is more and more in line with age and is more distinct from their peers at the same time. This was illustrated by the use of a set of letter types in children aged 5 to 18 years. Writer variance in children aged around ten or eleven was the highest showing a time of experimentation and transition while individualization in older children was largest, as evidenced by a clear propensity to make handwriting samples identical but different from their peers. It is clear that most adults are substantially different from their children's handwriting when considering individual letterforms, not just in respect to general appearance and skills. Hand writing changes are largely gradual over the years of adolescence but often more abrupt, particularly when a writer consciously introduces new features into his writing during experimental periods. Any of these improvements would also have a further impact in aiming for pace as the author not only faster, but also adopts a more effective handwriting style [6].

Hand writing recognition is an important procedure that enables handwritten inputs, including touch screen, papers, photographs and other devices, to be gathered and understood. The pictures of written texts in optical image processing are named as "off line." It is easier to describe the "on-line" behavior of a pen's tip on a pen-based gadget since more options are available. The key method of recognition of optical character is the handwriting detection.

The handwriting recognition system manages the formatting of the text, splits it into symbols and finds the much more common numbers. Mechanical or electronic converters may be OCR. Machine-readable text is created from handwritten images and typed and printed text extracted from a picture of the document, scans, or a scene-photo of the text that is subtitling placed on the photo. OCR is typically performed on static documents "offline." Handwriting moments are used to enter the handwritten recognition structure. A static handwriting representation is used as input data. OCR machines primarily use text printed on a computer and hand-written text. Gestures are easily captured via the shapes of glyphs and sentences when used for the approach. The recorded movements are the order in which the segments, position, and series of the pen are positioned and lifted. This additional knowledge can improve the consistency of an

end-to-end technique. This technology is also known as dynamic and real-time character detection. Online handwriting characters are identified using a specific digitizer or PDA. The sensor records all stroke motions as well as stroke/pen-down, which is the lifting and lowering of a stroke. The obtained data is referred to as digital ink. The ink is a computer representation of handwriting. The signals are transformed into letter codes that text processing software may access. Early character recognition versions must be taught with photos of each character and worked on one typeface at a time. However, today's modern systems achieve great accuracy in the majority of commonly used fonts, which are supplemented by multiple image format inputs for digital image files. Some systems additionally provide prepared page outputs that are nearly the same as the original page, such as images, columns, and so on.

Humans can immediately identify the handwritten paper. However, computer machine recognition becomes tough since picture, writing size, policies, and styles fluctuate due to random noise variations. OCR is a branch of artificial intelligence, pattern recognition, and computer vision research. It is frequently used to insert printed paper information or data records such as computer receipts, invoices, bank accounts, business cards, static data scans, e-mail messages, or any other necessary documents or passport document. Through this method, printed texts are digitized and utilized to edit, store, browse online, search, and employ computer processes such as machine translation, cognitive computing, voice-to-text, and data extraction in a compact manner [7].

Deep learning is thought to be essential in the study of pattern detection and image processing difficulties. Hand-written identification attempts to convert all handwritten papers into notational texts. Pattern recognition and ML are distinct fields. Handwritten Identification of Character (HCR) contributes to the creation of a human-system interface. Offline and online recognition are the two main methods of handwritten recognition. Real-time online recognition works by extracting complicated visual features from strokes. Offline identification is not detectable in real time. In both offline and online recognition, many techniques to conceptual and semantic approaches, statistical approaches, vector machine support, and neural networks were applied. Many research efforts have been done to enhance processing times and recognition rates. Offline identification is more difficult because we recognize that everyone has a unique writing style. Many scholars have been drawn to it since it is

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employed in practical applications such as documentation review, description mailing, and financial institution testing [8].

1.2.2 Handwriting Features

Handwriting has a range of features that are distinctive and recognizable for each writer is widely agreed. It is thought that there are not only no two documents written by one person in exactly the same way, but that no one writes them all in the same way as another author. It is also based on the analysis of many handwriting aspects as this cannot be supported by relying on one or more handwriting features. Handwriting is not only special but also inter-related in its different characteristics, producing for and author a complex handwriting formula. As such, handwriting consists of pattern and handwritten experts analyze patterns in handwriting instead of relying on isolated handwriting functions. The pattern must be formed in a number of comparative samples for a writer to assess the range of variations. Rarely, one or a few handwriting comparisons may be used to recognize or erase the handwritings or signatures.

Thus, several handwriting or signature samples are needed in the analysis due to the natural range of variation. Due to a lack of static handwriting and the subject of changes over time or due to other variable words, samples of handwriting written over a similar period of time and under equivalent conditions appropriate to the written material under question are also required. The evaluation of handwriting samples under inspection was one of the first stages in a handwriting examination. The examiner must test the samples and assess if they exhibit natural handwritten features. Manuals have an unimpeded activity flow. Adverse factors such as fitness, environmental conditions, drugs, alcohol and some other conditions may influence handwriting. If there are exceptional characteristics or dysfluence in the subject writing, the examiner must evaluate whether it is consistent with other samples which display natural characteristics and/or decide why the abnormal handwriting characteristics occur. A layman can be viewed as reluctant with respect to the significance and prominence of handwriting, but handwriting is a predictive tool that can embody human nature in the spreads of social skills, intellectual marks, organizational activities and possible behaviours. The handwriting characteristics and the letter formations are normally affected by the writing system acquired by the

writer during the study process. Handwriting is not an intrinsic function, but the skill or lack of coordination of the person may be part of it. Therefore, in the subsequent writing, there are several components of involuntary pattern, characteristic pattern, and muscle movement, which form part of a specific individual as the specific habit of the brain [9].

1.2.3 The Importance of Handwriting

Handwriting is a purchased craft such as drawing, dance or cycling. The early stages in which writing is taught and practiced are distinguished by the learner's deliberate attempt to imitate traditional letter instruction. The muscles of his writing hand create a mental impact. The actual creation of a word and language is almost accidental due to repetitive use of letters. Handwriting is a coordinating process in which the brain is the key regulator for handwritten the subject. The muscles also play a significant role in the handwritten process. This analysis aims to establish the writer's origin based on handwriting features. This forward-looking research was conducted by 150 people from 15 countries.

The results revealed that certain classes of handwriting are designed which writers acquire of the country in which they belong, such as the design of certain letters, and the handwriting role, which in turn helps to decide to which country writer they belong. While many handwritten tasks have been replaced by word and email processing, there are many tasks which still demand readable hand writing. For potential employers it is not uncommon to ignore applications by applicants for jobs when handwritten or hand-printing is unreadable or unwanted. Litigation can stem from poorly written, unreadable doctors' prescriptions.

In reality, there are specially developed doctoral handwriting mitigation programs. There are illegal envelopes on the Postal Service. There are several instances of handwriting applications every day, such as checks, admission receipts, form completion, envelope management, writing a card, writing observations or writing a list. Some people are predisposed to others because of the way the handwriting looks. Negative remarks about unsound, unreadable handwriting are not unusual for people. Studies have shown that teacher grades in documents with handwriting disorder are lower. The graphic tablets are being used more and more and this can lead to an increasing need for legible handwriting to "read" the handwriting by the recognition

9

program. "Handwriting has not been given the attention it deserves in the education system because it plays an important part in the cultural development of children." Hand writing offers a direct correlation or path between the brain and hand to the development of literacy in the early stages of childhood learning and development. The complicated engine processes necessary to write, write and compose requires an integration that enhances language skills in the growing mind. Research has also shown that the use of handwriting improves orthography, reading and writing. Handwriting is 'hand-to-hand language.' However, poor handwriting acquisition, if not properly taught, may impede compositional writing. There are only a few motor tasks which so closely connect the body and the brain as to write. The fine motor skills required for writing handwriting combined with a short and long period and language learning support the brain that can be replicated by few other activities. It was found to support autistic as well as non-learning children through a multi-sensorial or kinesthetic approach to learning. Handwriting is an interdisciplinary practice that helps to coordinate, memorize and improve cognitive skills. Handwriting 'can make a valuable contribution to developing the fine motor skills which decide willingness and the capacity to write [10].'

1.3 The process of writing

Handwriting is an advanced skill that we normally start to obtain in the early years that develops through adolescence and early adulthood in the following years. In early adulthood handwritten has grown to a well-developed style, which is not altered for years until factors harmful to handwriting, such as illness and age, begin to affect it. Handwriting is one of many knowledge developed in the early stages of life.

A few theories explain the acquisition of general skill, whether it's cycling, playing the piano or writing. These theories are structured to tie what we see in individual ability growth to understanding how it interacts with what occurs in the brain. It is particularly thought that certain brain regions are predestined to perform certain functions by means of neural associations, indicating that certain brain parts are connected to various sub-elections of the handwriting process. The finding that handwriting differs both for a given writer and between writers is an important foundation of handwriting analysis. This definition of heterogeneity is fundamental to certain hypotheses about the manner in which psychological processes function. It varies deeply from the notion often found that psychological processes share factors underlying each other. Siegler highlighted the need to adopt variability to recognize the variations that occur in psychological processes, a view which shares the potential gains generated from the study of behavioural variation. Detailed consideration of variation is not only beneficial but also necessary for enlightening the complex essence of individual learning and development. Different regions of the brain are engaged in the creation of handwriting, and these are seen in brain scans, as several studies demonstrate. For example, PET was used to check the writing speed and different areas of the brain cortex were found to be involved in pen control. The handwriting of professional and disqualified children was studied with fMRI, with distinct areas of the brain correlated with skill differences. How the different handwriting factors coincide to enable seamless and effective production now is taken into account [11].

1.4 Ambidextrous Persons

Ambidextrous Leonardo da Vinci was one of several Florentine artists with exceptional abilities. Because he had injured his dominant right hand as a child, he used both hands to create paintings. According to the Uffizi, one document – the date inscribed in the upper left corner in front of the painting – is the inverted inscription in the mirror. Multiple times, Da Vinci has utilized this as a mirror reading, despite its obscurity. The main objective of this project is to design a framework which can recognize efficiently the current format character of a neural network. Neural computing may be a relatively new area, and therefore style components are less well-defined than other architecture. Neural computers use parallel data. There is a somewhat different neural machine from the regular computer. The neural computer is run.

Neural computers are educated and not programmed apparently. To compare the data to the trained system and provide the user with an appropriate output text. Frosinini examined the painting and inscription under a microscope using high-resolution images and infrared illumination. They also classify biological stuff using an X-ray fluorescence kit and a portable machine. Researchers have established that Da Vinci's ink was hand-drawn, that the letters were all produced in a similar shade of blue, and that the inscriptions followed a strict sentence structure. It's possible that da Vinci

penned these two inscriptions with opposing hands, given the disparity between them. This text has to be written with the left hand inverted at the front, and the nondominant right hand at the back, based on a review of da Vinci's writings. Ambidexterity is the ability to use both your left and right hands [12]. The phrase means that the material equally suited to conservative politicians and on the left as opposed to objects. It indicates that a company has no strong preference in relation to people for using his right or left hand. Just about 1 percent of the seven billion people are gender ambidextrous, or about 70,000,000. There are those in society today that are ambidextrous in schools and careers that either require or stress right hand practices, who have learned how to become ambidextrous deliberately or as a result of schooling. As many of the day's devices are asymmetrical and suitable for people with the right hand, because of rare or lack of left-hand models, many left-wing people will use the devices with the right hand.

Therefore, the left side is more likely to become the non-dominant side than the right wing. The prevalence of leftness is approximately 13% in adolescents and decreases steadily at the age of six% in the 7th and 8th decades of life. Many causes, including maternal handicap and family history of symptoms, precedes, and early brain trauma are thought to influence handicaps. Leftness also restricts choice of occupation, epilepsy and shortened life expectancy from certain medical disorders. The prevalence of atypical language representation of left-handed individuals is assumed to be higher, but most evidence of this is found in the studies of neurology sufferers who may be diagnosed with both handling and language lateralisation by illness. Recent non-invasive imagery studies show that about 95 percent of average righthanded people dominate the Left-Hemisphere. These trials also demonstrate that the dominant hemisphere (the right), albeit at various degrees in different individuals, plays a significant role in linguistic processing. In comparison, in normal left and ambidextrous individuals, the continuum of patterns of language lateralization is not well defined. In one fMRI sample, the incidence of atypical language dominance in normal left subjects was greater (24 percent) than in comparable right subjects. Language domination in this model was conducted on activation in one side frontal region, but it is not known whether something holds entire brain. Another fMRI research did not, however, find any link in a normal right cohort between the degree of rightness and language lateralisation. None of these studies concerned people with

Ambidextrus, who are little talked about. No research tested whether the lateralization of languages in left-handed people is related to other genetic factors, such as sex and the family history of izquierdity. We have estimated the effect in regular left-hand and ambidextrus subjects of an atypical language organisation [13].

1.5 Image Pre-processing

In the recognition pipeline, the image pre-processing is vital for correct prediction of character. Typically, such techniques include noise reduction, segmentation techniques, cropping, leveling, and more. In our project, these techniques have primarily been used to recognize from an image, but some of them, such as cropping a written character and scaling it to our key length, are also conducted in touch mode. Digital image capture and conversion often produces noise, making it difficult to determine what is currently an object oriented of benefit and what is not. In view of the problem of recognition of characters, we want to minimize noise as much as possible, while maintaining character strokes, as these are necessary for the right classification. This can be achieved in a variety of ways. One of these is local manufacturing. According to local pre-processing, the input image is used to measure the output value of the pixel inside the output image by a small area around the query pixel -a mask. That is what filtering is called. We use convolutive masks for this work, which scan an image, reducing ideally all unwanted noise. Masks consist of quadratic matrices with weight elements of the surrounding areas, which decide the pixel's light intensity value. Image segmentation tasks are to break an image into sections that have a clear connection with artifacts or the properties of the real-life image.

Thresholding is potentially the easiest form of image segmentation. The threshold is the extraction from the monotonous history of the foreground, which is a character in our case. This is equivalent to the binarization of their actual data in a gray-scale picture. An image threshold is chosen to transform the image input. The measurable characteristics of the predictions used for the analysis or classification of these feature vectors are the characteristics of the entry data. The functional extraction task is to select relevant features which well discriminate the instances and are mutually independent [14]. Image processing may be a machine vision manipulation of images. There are several methods for manipulating the images with the event of technology. In several places, text recognition plays an important role. But such a job by a computer is difficult to try. We have to train the machine to recognize the text. The acquisition, extraction, classification, and recognition of character comprises several phases. Handwriting recognition is the capacity of a machine to accept and interpret handwritten data from external sources such as photos. The main objective of this project is to design a framework which can recognize efficiently the current format character of a neural network.

Neural computing may be a relatively new area, and therefore style components are less well-defined than other architecture. Neural computers use parallel data. There is a somewhat different neural machine from the regular computer. The neural computer is run. Neural computers are educated and not programmed apparently. To compare the data to the trained system and provide the user with an appropriate output text. A handwriting recognition system is able to format, divide properly into characters, and find the most probable words. The automatic transformation of the text into letter coding in an image that is used in computer and text-processing applications includes offline handwriting recognition. The knowledge received by this way is regarded as a static handwriting representation. Depending on the writer the cursive style differs and has specific features between individuals. Not only that, but external influences have a direct effect on the way of writing, including the tool used for writing, the writer's emotional status and available time. This great variability contributes to the application to normalize these anomalies in image processing techniques.

Contrast, slant correction and image normalization are widely used in these techniques. In order to reduce the irregularities in the image, such as light spikes and excessive shadows, the first approach is to correct the contrast. Thus, approaches such as lighting compensation are effective in this case, as they reduce background and foreground disturbances via lighting. The second modification, slanting or distance, seeks to normalize the vertical tilt of the character. The process determines the observed angle based on the inclination angle on the vertical axis. The mechanism then incorporates geometric picture transformation. The last strategy of standardization is to rescale image characteristics (pixels) to give rise to a medium/variance image of pixels equal to 0 and 1 respectively.

It is necessary to identify what is true as a word (token) for the computer-readable text or speaker set first of all in order to normalize a text. Depending on the final application, tokens will count the dot marks. In the pre-processing process, it is possible to stress:

(i) tokenisation; the function of splitting the sentence into words or characters;

(ii) filtering; the task of extracting words with little information;

(iii) to lemmatization; the task of grouping many inflected formats with the same text in such a way that they can be analyzed in single token.

However, we need to retain as much information from the text as possible for most NLP applications, so only embedding can be used. The popular Penn Treebank Verification standard is widely used to evaluate corporate datasets in this context. It distinguishes clitics, preserves hyphenated words and separates the punctuation from each other. Therefore, the most critical step in the writing process for optimizing the input text is pre-processing, or normalization. The whole output of the system is affected by this step, for example because any mistake in the tokenization can be equivalent to a mis-detected and corrected spelling error or noise when building language awareness on a language model or neural network [15].

1.6 Optical Character Recognition

Optical character recognition or the optical character reader shall be an electronic or mechanical conversion from scanned documents, a photographic document, a scene-photograph, or a text that has been subtitled overlaid on an image, of images of the typed, handwritten or printed text into machine-encoded text. A common way to digitize printed text so that it can be edited, searched, stored in more compact form, viewed online, and used in system processes, is commonly used as data entry from printed hard copy records – whether passports papers, invoices, bank statements, computerized accounts, business cards, mail, static data printing or any relevant documentation. Cognitive computing, automatic translation, text to language generated, main data and text analytics, for example. OCR is an area of trends, artificial intuition and computer vision science. Initial versions had to be trained with each character's images and a font worked at a time. Advanced systems which can

produce high accuracy of recognition for most font sizes and support multiple inputs in digital image file formats are now popular. Some devices are able of replicating structured content closely similar to the original page with images, columns and others that are non-textual [16].

OCR systems have two categories:

(i) online, in which data from static scenarios is received in real time by means of sensors; and

(ii) offline, as is used for images.

In the category of offline, the written text and document are still remembered. In contrast to the scenario of reading printed text, offline Handwritten Text Recognition (HTR) is more difficult to fulfill its objective due to the multiple variations of a single sentence for the same author. After the implementation of the Hidden Markov Model (HMM) for text identification, HTR systems have expanded significantly. The recognition system at various levels of text categorization, namely character, word, line and even paragraph levels, are currently possible through the use of Deep Neural Networks. However, they still fail to achieve satisfactory results in scenarios with an unregulated dictionary and to reduce the problem, it is common to use the Natural Language Processing Techniques, in particular, the statist method for the postprocessing of text decoding. Tools such as Language Model and Kaldi, such as Stanford Research Institute, have gained room in recent years by using a language model to decipher text. Currently, these two tools are the most extensively utilized in HTR systems, and optical model results have been enhanced during this phase. In addition, it is essential to construct and employ a formal dictionary of character based on the data set or an external organization using statistical techniques. The decoding of text in an HTR system is therefore restricted to this dictionary, which in turn has a correlation to the date set, which restricts the applicability of the HTR system in new text scenarios, particularly in multilingual systems. In contrast, the neural networking technique has yielded positive results in recent years in fields of NLP research such as machine translation and grammatical error correction [17].

The use of encoder-decoder models, sometimes referred to as Sequence to Sequence, has increased significantly in the NLP discipline, where applications frequently

require vast language knowledge and statistical approaches are sometimes confined by the linguistic context. The Care Mechanism has also enlarged these models to provide even better outcomes, and more recently, Caution-Based Models have been introduced. After an HTR system has been processed and the stages of recognition have been disconnected, the primary objective of this research is to introduce alternative spelling correction techniques to ensure that the conventional method of decoding is conducted competitively. In other words, to combine the HTR system with any post-processing tool, regardless of their respective dictionaries. In this paper, we employ and assess algorithms that focus on orthodox correction, which vary between statistical and contemporary neural network approaches to linguistics including Sequence Focus Mechanism and Transformer Models [18].

1.7 Problem Statement

The most challenging part is determining the unique qualities of each word's handwriting. Not well with overfit data. It is unable to predict results during testing and training. Predicting and implementing handwriting paragraph feature data is difficult. Data pre-processing is required because of the variety of sources of structured data used in this modeling problem. The datasets are challenging to evaluate since each line with a boundary rectangle that corresponds to the most relevant feature is difficult to construct and locate. Handwritten digital identification is a critical problem in recognition of optical character, which can be used to evaluate pattern recognition hypotheses and ML algorithms. A number of standard databases have arisen in order to facilitate research into ML and pattern recognition. Handwriting recognition is a fascinating and convincing piece of writing because everybody has his or her own writing style in this world. The major challenge of handwritten numeral identification is the extreme variation of scale, translation, stroke thickness, rotation and numeral image deformation, which is attributed to handwritten digits written by many users.

1.8 Objectives

• Identify and Classify ambidextrous and non-ambidextrous handwriting characteristics.

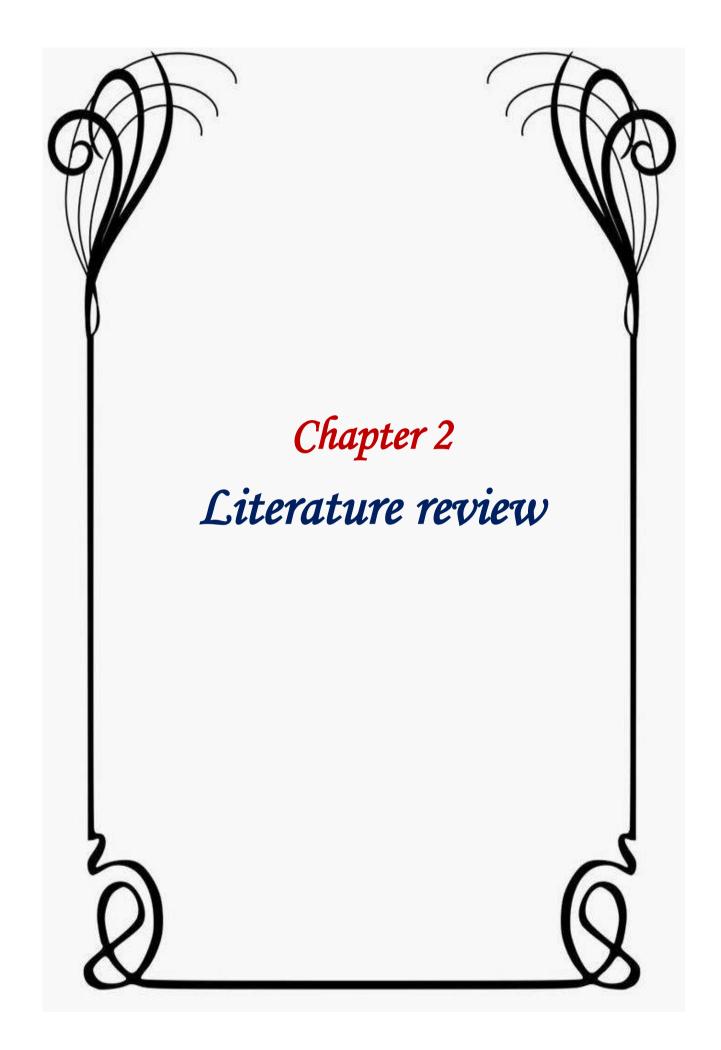
- Analysis and predicting the images of ambidextrous and non-ambidextrous handwriting features.
- With each line of paragraph, analyze the image data of handwriting traits of ambidextrous and non-ambidextrous people.

1.9 Methodology

For implementation, Python and the deep learning programming language were used. Python is an advanced programming language that can be used to build a DRNN model. It also supports Python 3.7.1, which is the version utilized for this investigation. Anaconda jupyter notebook python IDE is used in the code creation process; it is designed for data analysis tasks. Jupyter Notebook contains a number of science libraries, including sklearn etc. It also allows for debugging, extensive analysis, and editing in a variety of apps ("Jupyter Notebook: Anaconda Cloud"). Sklearn, Pandas, Scipy, Numpy, Matplotlib, tensorflow, and, seaborn among others, have been used. Handwritten digital identification is a critical problem in recognition of optical character, which can be used to evaluate pattern recognition hypotheses and ML algorithms. A number of standard databases have arisen in order to facilitate research into ML and pattern recognition. Handwriting recognition is a fascinating and convincing piece of writing because everybody has his or her own writing style in this world. ML is a computer science and technology area that helps machines to understand things without being specifically programmed. The use of ML is used when programming and developing algorithms with enhanced performance are not possible. Like many applications, email filtering, malicious insiders detecting data breaches, optical recognition (OCR) character recognition and computer vision are included. Handwriting has become necessary as we step into an automated world. In the area of visual and speech recognition, deep learning produces unbelievable results. However, we also lack the exactness of human vision and development before we reach the boundary. TensorFlow is an open-source learning machine and a deep learning frame from Google, it is simple to construct a deep learning model as usual. CNN is a special model of deep learning; its strong feature removal capabilities of convolutionary blocks are the advantage of using CNN. A convolutionary neural network model with five convolutionary layers was built on the basis of the TensorFlow platform. In this test, we find the highest recognition data in the proposed

method, based on samples of large IAM database images collected and evaluated on sample images from user defines data sets [19].

Handwritten identification is a common activity since a number of writing choices are available. The computer algorithm does not find the recognition of handwritten task correctly due to the same condition. In past literature, profound research algorithms were commonly used. Simultaneously, extraction of functions is very important. Graphics, histograms, mathematical transformations and moment-based functionality are some of the most common techniques in this mission. Pre-processing, differentiation, description, preparation, identification and post-processing are some important steps involved in handwritten character recognition. With regard to realistic implementations, a number of mobile apps and web applications provide their customers again with characteristics that improve end user experience that can be technically accurately described. Significance and difficulties in the identification of characteristics are our aim to pursue solutions that were available in the past and to explore new ways of addressing the problem concerned. As the literature mentions above, the new field of deep learning algorithms is one of the best ways to find a solution. We examine handwritten with this encouragement [20].



CHAPTER-2

LITERATURE REVIEW

2.1. Handwritten text recognition

(Rahman et al., 2020) highlighted the usage of slanty moving, printing, handwritten copying, fake delay, stuffing, changes in sentence structure, heights and length, and so on. The author has used masking features Even so, the main characteristic of camouflage is complexity. 100 writers were selected to copy a text using some covering to decide the most common disguise techniques. Most writers were aware of improvements in writing tendencies, the use of grotesque forms of letters, picture presentation and written skills, through the use of pen texts as an efficient disguise [21].

(Firdaus et al., 2020) describe and define in a letter of motion the various characteristics of left handedness that were found fundamentally opposed to those found in the writings of the right-hand authors. If a person remains or right can be decided based on certain attributes. According to this study, writing on the opposite side usually implies poor writing abilities due to unmanaged retention of writing utensils as well as dangerous stroke movements, rapid lateral strokes, a lack of fluid handwriting, and an irregular letter style. [22].

(Neto et al., 2020) analyse that It is difficult for a computer for various reasons, such as form, scale and other factors, to accurately recognize hand writing numbers. This review refers to the integration of the TensorFlow-based handwritten detection technique. The framework was developed and worked with an 8g RAM upon this Mac OS. Initially this approach creates a neural system and trains the hand writing number identification model in the MNIST dataset. This way we can insert the manuscript picture and get the estimation result [23].

(Jia et al., 2020) analyse that Handwritten identification of the character of our lives was widely used. The existing handwriting method is machine-based and cannot recognize high-definition text. This research provides a new improved handwritten technique of repairing the neural network, which includes the addition of a Batch Normalization Layer and residual network structure to the overall convolutional neural network, as well as a multi-scale classification algorithm. The test sample has a greater detection rate. Keras created an upgraded convolutional neural network for the computer in order to train the EMNIST data set and obtain the model [24].

(Hamida et al., 2020) analyse that A significant number of operating uses have the automatic identification of handwritten Arabian words in the field of science. However, due to the difficulty of the structure of Arabic language the solution to the problems of cursive recognition of handwriting is still difficult. In this analysis, we use an IFN/ENIT database of Arabic words describing the names of Tunisia's cities to build and implement an offline, written word recognition system. The cantered gradient descriptor and a Gabor movie have been used for function extraction and the KNN as a classificatory in two types of descriptors. Samples derived from IFN/ENIT database are being analysed [25].

(Dey et al., 2020) analyse that Handwritten Digit or digit identification in various platforms and applications plays an important role. A new technique is proposed here to recognize offline handwritten digital images based on a string-editing distance algorithm. The recognition method attempts to build up the string of each digit, and then predicts the digit class by contrasting the test string with the current string. The lower the editing gap, the greater the probability of resemblance between the two-digit strings. This system has been tested by some digit databases and a number of multi-data sets were developed to evaluate efficiency of the model. So, the device can be trained and checked by a dataset. The excellence for the robustness of the predicted system is illustrated by four types of data sets. In certain cases, the recognition method has very fewer exercise samples from a certain dataset have been checked. Tabled as well as a pictographic version display the effects of these experiments [26].

(Jinze et al., 2020) analyse that Image identification is also widely used in machine vision. Digital recognition is commonly used as a form of image recognition. Today, digitally recognized online image recognition is highly advanced, but offline recognition technology is not. This paper presents a handwritten automated offline recognition method based on neural networks. As a workout sample, the device uses the MINST dataset and transforms the image with the Opencv package. LeNet-5 then extracts the handwritten digital image function, converges it over and over, and draws

the results into a single-dimensional vector in the convolutions neural network. And the highest likelihood of deciding the outcome to achieve manual digit identification with the linear regression is finally found. The use of this method will improve efficiency considerably and increase work performance, that in many sectors is extremely significant [27].

(Najwa et al., 2020) analyse that Applications in several different fields are distinguished by automated handwriting reconnaissance. It is a difficult problem which in the past three decades has attracted a lot of interest. The research focused on the recognition of the handwriting of Latin languages. Fewer Arabic language studies have been carried out. This paper introduces a new database of Arabic paragraphs written by children aged 7–12 and called Hijja exclusively. Our dataset includes 47,434 characters of 591 members. We also suggest a handwriting automated model for recognition based on convolutional neural networks (CNN). We train both our Hijja model and the Arabic Dataset of Handwritten Characters (AHCD). The findings of our study indicate that our achievements in the AHCD and Hijja datasets are promising and meet precision of 97 and 88%, respectively, which outperforms other literary models [28].

(Zouari et al., 2020) analyse that the online handwriting recognition problem based on the principle of enhancement learning. The handwritten trajectory is split into strokes, and their conceptual and numeric characteristics have been taken into consideration, based on graphical code and beta-ellipsis. The environments have been trained with tabular q-learning algorithms to determine optimal satellite-to-action values for each handwritten class. The proposed model has been analysed on LMCA and provided very positive results for the systemic and parametric images [29].

(Zhang et al., 2020) analyse the Deep learning plate recognition, a form of neural networks of image classification. Improved Convolutional-Neural-Network (CNN) for recognition of license plates is used to detect accuracy and identification speed. The results of the experiment show that applying neural networks in image classification can effectively increase the license plate recognition rate in different conditions, such as pollution, inadequate lighting etc. With the broad training character collection, this recognition rate is increased. The higher the identification rate the more character shapes are included in the character selection [30].

(Shatvawi et al., 2020) analyse that A multi-stage online, handwriting, holistic Handwritten arabic recognition system using a Local Binary Pattern (LBP) methodology, with two machine-learning approaches; (ANN). The Leverberg-Marquardt (LM), Scaled Conjugate Gradient (SCG) and Bayesian Regularization (BR) methods have been used to evaluate ANN efficiency. The classification results of the suggested model were compared and reviewed with the results obtained using the Discrete Cosine Transform and the Master Portion Analysis methods of the two Arabic Text Recognition Models (ATRSs), using various normalization size Arabic Text Images. The results of the classification of the proposed model are promising and better than the results of the comparison model tested. The best accuracy of the proposed model classification (97.46 and 94.92%) is achieved by the quadratic Classification technique and BR ANN training techniques [31].

(Nikitha et al., 2020) analyse the Handwritten identification of HTR domain text. While numerous research methodology for HTR are available, the accuracy of HTR systems needs to be further improved. This document is part of the Deep Learning algorithm implementation for the HTR system. We will first collect data for training handwritten texts, then extract features from text datasets and train models using the Deep Learning technique. In this work, we will apply the approach to better grasp these features in terms of words. The model created with the deep LSTM model has great precision. Finally, the HTR system is integrated with the OCR system, and the results are presented in this paper. This method is also included. In this paper, two methods on handwritten IAM data have been compared and observed that 2DLSTM is a different approach [32].

(Bassam et al., 2020) analyse that the Issue of Arabic number recognition using a single sensor camera. When a digital image is shown, numerical data can be captured by optical character recognition. But with the Arabic Handwritten numbers, there was little success. This research aims to solve this limitation and creates a skeleton-based image recognition system. Only hand-written Arabic numbers use the suggested solution. Even numbers reported in the worst situations, the output results show the success of the proposed method of optical character recognition. The device proposed produces a 99.3 percent recognition rate [33].

(Husnain et al., 2020) analyse research field with handwritten text recognition in Urdu language. In these fascinating and difficult areas, substantial progress has been made in recent years. In this study, the authors presented in the Nastaliq fonts from 2004 to 2019 a systematic study for some handwritten, offline text recognition systems for Urdu scripts. The following features make a valuable and special contribution to reviews of the same kind:

(i)their analysis classifies the current studies based on the types of handwritten recognition systems used in Urdu text,

(ii) covers a somewhat different perspective of the Urdu handwritten text recognition method at different levels.

Using Urdu handwritten text recognition methods, major problems and challenges are finally addressed in depth [34].

(Sharma et al., 2020) analyse that the advances in computing and technology have become popular with the digitizing of press printed or handwritten text documents. The people have tried to simplify their jobs by substituting machines for themselves. The transition from manual to automation contributed to many fields of research and text detection. Deep learning and neural network models have proven very suitable for the identification of optical character. This thesis addressed in greater detail an upto-date description of four mask learning systems and profound learning architectures, i.e., vector support machines, neural artificial networks, Naive Bayes and Convolutional neural network [35].

(Nikitha et al., 2020) analyse that Handwritten and HTR-domain identification of text. Although there are several testing methods available for HTR, the precision of the HTR systems still needs to be improved. This paper leads to the implementation of the HTR system Deep Learning algorithm. First, the data for training the manuscript text is gathered, and then features are extracted from the text datasets and the Deep Learning approach is used to train the model. In order to increase the precision of our character identification, we'll make use of this technique. The pre-installed model uses a deep LSTM model and is very accurate. Lastly, the OCR framework is combined with the HTR technique, and the outcomes are compared in this article. (Thangamariappan et al., 2020) analyse that Deep learning is the most effective technology for the next generation of ML. The outcome of the written recognition by means of deep learning is provided in this article. Every person's handwriting is special. The handwriting is also different from person to person. Handwritten identification in two forms is possible. One is handwritten recognition online and another is handwriting identification offline. On-line handwritten identification device that receives the feedback on time and offline handwritten identification on scanned images. Handwritten offline is the most difficult handwritten to find. For this manually-written digit recovery method, the MNIST data set contains 70,000 handwritten numbers. There are a large number of machines learning algorithm which can be used for this digit. This article analyzes the accuracy and efficiency of Convolutional Neural Networks algorithms. With absolute precision, the proposed solution recognizes 93% [37].

(Vinjit et al., 2020) analyse Handwritten Character Recognition is submitted in detail. Any of human characteristics are specific to persons such as iris, fingerprint, DNA, etc. Handwriting is one of those features which for every human being is different and has been scientifically confirmed. In Handwritten Recognition of the Character (HCR), the job is to recognize the people's characters and turn them into textual content. HCR is an environment in which a great deal of research is done but space for improved accuracy and efficiency is still available. In today's world, the digitization of manually written text is very beneficial because it makes data available conveniently anywhere. Computerized text can be used in industrial applications, and in contrast with manual text, is safer and environmentally friendly. This analysis will provide some insight into different methodologies, their benefits, limits and accuracy rate used so far in this area [38].

(Alrehali et al., 2020) analyse that The Islamic tradition is rich in Arab texts, which contains important Islamic theoretical concepts. These manuscripts are however difficult to read and must be translated into a publishable type. This paper thus proposes a system in which the text in the photographs of these manuscripts can be recognized and translated into a readable text that could be copied and preserved for further use. The key steps on our Algorithms are: 1) to improve the image; 2) to divide the image into outlines and plotlines; 3) to create an Arabic Character dataset;4) to recognize text; (classification). We apply CNN to three generated data

sets in the classification stage and provide a precision ranging from 74.28 percent to 88.20 percent [39].

(Ahmed et al., 2020) analyse that Numeral recognition for image processing and computer vision, comprehension of documents and other aspects is a significant preliminary step. Since the last few years, deep learning numerical recognition models have become extremely popular with researchers around the world. Several CNN-based frameworks were proposed and all of them were numerically recognized with state-of-the-art results. In this document we analysed handwritten Arabic digital recognition architectures based on CNN. We have also established a manuscript Arabic numeral database using multiple morphological procedures on an entire database, which increases the dataframe size from 3000 to 72 000 images. A shift in the architecture previously proposed by CNN brought us 98.91% precision and 99.76% of the architecture we proposed were compared to the latest findings found in handwritten Arabic number identification [40].

(Srinilta et al., 2020) analyse some commonalities and variations in written languages. Identifying one language will help to understand more. While labelling data in Thai handwriting text categorization problem domain is minimal, multi-task education is chosen as a solution to the issue in our research. The multipurpose model is educated in written scripts from Thai, Latin and Devanagari. The model consists of three strata using the CNN, the CNR, and the connectionist time grading respectively. The framework consists of three strata. Accuracies in identification was compared to three separate existing datasets. Multi-task learning greatly increases the efficiency of Thai manuscript text recognition. Multi-language learning makes the model more general when trained with broad data sets [41].

Studying 135 persons, Jemimah et al. (2019) found that the most common camouflage strategy used by writers to alter their work includes marketing and uncomfortable hand-printing as well as a variety of other techniques. Just 8 individuals out of 135 used tiresome hands to cover their faces in the event of unusual masks. Unexpected handwriting was equally unlike normal handwriting. Many writers seem to be adopting this method, but few have used it improperly because they struggled to write hands uncustomed. Each function measured the frequency of the shift occurrence. The results

showed that disguise is untrustworthy or efficient. Elements such as modification or substitution were mainly used to change and impact the text picture [42].

An analysis of 4000 specimens published to the right and left (Kalita et al., 2019) was conducted. Both subjects have completed their punishment for falsifying data. 9 percent of ordinary left write and opposite hand writings differ from usual write-up to flat top r, d, l, or other looped letters; vertical slant, perfect or bizarre tremor, open base T and d, t-bar crossing, abrupt lateral movement; very little ability to do the job. It has been noted that uncomforted writing at the roots can be found if significant variations are carefully calculated [43].

(Cilia et al., 2019) examine the strokes of the writers, particularly the left-hand authors who hold the pictures on the left side of lines and explain some traits such as colon I and other punching dots that generate shapes such as bowls or curving vertically as the authors quickly write. T-bar indicates that the wing author used just finger movement with the base of his hand inflexible. As the left-hand crosses, the hand is free to take a stride forward as the t moves from left to right. When writing over previously written lines, hand, smear trends can arise. As the hand moves down to the next line of writing, metal impressions from the hand base are transmitted to the page [44].

Handwritten text recognition in the field of Optical Character Recognition remains an open research topic. In this article, the implementation of handwritten recognition systems is proposed as an effective solution. This paper uses a supervised learning approach to the use of the 3 layer Artificial Neural Network. Therefore bit map description of input samples is used as the feature vector to select the best feature vectors for the accuracy of any text recognition device. First, the function vectors are pre-processed and presented with the produced condition affects to the ANN, which are generated on the basis of input samples. In order to ensure the general application of the method against new inputs, 55 samples are used as an ANN training process for each English alphabet. This paper uses two different study algorithms. In order to handle multiple character inputs in a single picture, tilt image and rotated image, additional image processing algorithms are also developed. Picture processing may be a machine vision manipulation of the images. In many fields, text recognition has an

enormous function. But such a job on a computer is hard to try. We must train the machine to recognize the text. The acquisition, removal of features, classification, and identification of character includes many stages. Hand-writing identification is a machine's ability to obtain and interpret hand-written data from external sources such as photographs. The main objective of this project is to design a framework that can recognize effectively the actual character of the artificial neural format. Neural computing can be a relatively new area and thus style elements are less well defined than other interfaces. Neural machines use parallel data. A neural machine is run in a somewhat different way from the running of a normal computer. Neural computers are educated and not programmed apparently. To compare the data provided to the trained system and to supply the user with appropriate output text. A handwriting recognition system is able to format, divide properly into characters, and identify the most probable words. The automatic transformation of the text into letter coding in an image that is used in computer and document applications includes offline handwriting recognition. The knowledge received by this way is regarded as a static handwriting image. One significant feature of hand-writing recognition is that there is no control &bit greyscale on a high-quality flatbed scanner in such areas because the photographs were scanned at 300 pixels/ins as bank checks and postal addresses. Data about the writers, instrument of writing or style of writing. For instance, a live mail was scanned in a postal office. So, the handwritten word of this subject can be produced by a felt tip pen and the samples prepared have no idea that isolated or overlapping characters for algorithm investigation can be used so that the subject-bias problem can be removed. The text can be selected or overlapped. Fragments or phrases that are entirely cursive. The database provided here is also able to provide different levels of clarification, ranging from very slow to very clean, which are clearly specified training. These and examinations, however, are carried out. Approximately 10 per cent of the samples available where problems are always balanced by the restriction of random selections of the input terms and placed in the test collection. The rest of the vocabulary was fixed. A full OCR solution must also provide handwritten text recognition support in pictures. This illustrates the need to investigate the field of the construction of handwriting recognition systems for several languages and scripts. Many of the recently offline handwritten recognition software have introduced line-level identification strategies that combine convolutionary neural networks and recurrent long-term memory neural

networks trained with temporal classification links for feature recovery. Similarly, in comparison with conventional methods, these profound learning techniques, guided by database, learn features directly from the training data. Although the handwriting accuracy of public criteria has significantly improved, it can be challenging to scale these methods to promote the promotion of new domains or new language due to the expense and complexity of collecting and marking a vast range of handwritten linen image training data [45].

Handwritten recognition (HR) in the area of pattern recognition is a daunting challenge. Because in this world every person has his own way of writing. For inhouse applications, such as translating handwritten material into digital format, authenticating signatures, and number plate identification, this type of recognition is required. This recognition has been introduced using a range of computer training techniques such as Random Forest, Naive Bays, Vector Support Machine, CNN, etc. Precision and precision in hand-written digital recognition applications are mostly important. In real-time applications, even a 1% error may lead to incorrect results. In many fields, text recognition has an enormous function. But such a job on a computer is hard to try. We have to direct the machine in order to understand the text. The acquisition, feature elimination, classification, and recognition of the character requires many steps. Writing acknowledgment is the machine's ability to obtain and interpret written data from an outside source such as an image. The main objective of this project is to design a framework which can recognize efficiently the current format character of a neural network. Neural computers may be a relatively new area and thus style elements are less well defined than other architectures. Neural computers are parallel to the implementation of data. A neural machine is run quite differently from a normal computer. The computer is managed. Neural computers are educated and do not appear programmed. To compare the data with the trained framework and provide the user with the appropriate output text. A handwriting recognition system is used to format, classify the text correctly and find the most probable words. The automatic transformation of the text into letter coding in an image that is used in computer and document applications includes offline handwritten recognition. The knowledge collected in this way is regarded as a static manuscript representation [46].

2.2. Ambidextrous Persons Handwritten Text

The additional analysis would discuss the research aims, the processing of data and the refining of subjects that could be deducted without exploratory research. Exploration requires qualitative analysis to clarify the exact nature of the problems. The problem of hand-written numeral acknowledgment has been studied widely over recent years and a large range of representative techniques and algorithms have been developed. However, identification of manuscript numbers remains a challenge for us. Ambidextrous Individual manuscript numeral recognition varies from user to user due to the considerable variation in the dimension, translation, stroke thickness, rotation and deformation of the numeral picture due to handwritten numerals. A database with all usual samples of unconstrained numerals cannot be built. Various methods have been suggested to extract character recognition from the feature. Handwritten digital recognition is an active research field for applications and pattern classifications in optical character recognition. Handwriting recognitions are known to be offline recognition of handwriting and online recognition of handwriting. Although writing through the touchpad with the stylus pen is recognized, handwriting is also called online handwriting recognition. In this case, the handwriting is scanned and the machine recognizes it as offline handwritten text.

(Geetha et al., 2021) analyse that Automatic text recognition system may be an essential part of the development, digitizing and processing of current paper papers in the next few days, of a paperless world. Many researchers have thoroughly studied handwriting recognition using deep learning techniques. The large amount of data, as well as a number of algorithmic advances, makes deep neural networks simpler to train. Various strategies for identifying text from handcrafted documents have been initiated in the literature. This paper presents a model of the deep neural networks using a sequence-to-sequence (seq2SeQ) method for hybrid hand-written text recognition (H2TR) [47].

(Kaur et al., 2021) analyse that the detection, classification and modification of optical symbols / patterns found on a digital image include optical character recognition. Online printed report, offline as well as handwribed documents may be the object of recognition. Many tasks, such as mailing addresses, bank checks, verification of vehicle plate, etc., require the processing of OCR systems quickly.

Segmentation, extraction of characteristics, grading techniques are important for the identification of character. There are various phases of the OCR which enable text to be effectively processed, such as data filtering, position segmentation, pre-processing and differentiation. ANN can be used for effective machine processing for enormous data in the training phase. Handwritten text recognition is an active research area. Different techniques involved with the OCR and its constraints and the accuracy rate of ANN-based approaches are discussed [48].

(Harmandeep et al., 2021) analyse that The identification of off-line written words takes an imperative role in the field of study and recognition of documents. A technique to recognize offline handwritten gurumuki words is defined in this article. The method proposed includes a comprehensive approach to identify a word in which a word itself is treated as a specific object. Thus, without any clear segmentation, the term is remembered. Some elements, e.g. zoning, diagonal features, intersection and open end point characteristics are considered to derive from the terms images the desirable characteristics. For recognition purposes are used the techniques for classification such as the k-Nearest Neighbor (k-NN) Support Vector Machine (SVM) and Random Forest Classificatory. The qualified majority system of all the classification classifications and an ensemble algorithm is designed to improve machine efficiency. The algorithm of AdaBoost is used. The data database contains 1,00,000 examples of 100 distinct city names handwriting in Gurumukhi. AdaBoost methodology has recorded maximum accuracy of 88.78 percent, and results obtained are comparable to the latest results [49].

(Sethy et al., 2020) analyse that Different ML algorithms have made the character recognition possible. And it was known as one of the most difficult pattern recognition segments. Offline manuscripts are the most difficult of all characters as opposed to typed ones in the above sense. Despite different algorithms used on different handwritten texts, more feasibility solutions and a high recognition rate can be achieved. We concentrated here on Odia and Bangla scripts, handwritten numerals. In order to address the manual ambiguities, the Convolutionary Neural Network has been used to tackle [50].

(Zeng et al., 2020) analyse that the hybrid model employs the salient characteristics of the neural network (CNN) and the long-term memory network (RNN) (LSTM). Using

CNN, the functionality of the handwritten image is extracted. The characteristics extracted are subsequently modelled using a sequence-to-sequence method and fed to RNN–LSTM for visual features encoding and decoding of the string of symbols available in the manuscript. IAM and RIMES manuscript databases evaluate the proposed model, which display competitive letter consistency and word accuracy performance [51].

(Neto et al., 2020) analyse that Handwritten Text The acknowledgment has taken a great deal of attention among computer vision researchers. Present state-of-the-art approaches for HTR offline are focused on the excellence of CNNs in text scenes. Deep models including CRNNs and recurrent neural networks, which are commonly found in scanned documents, are sadly likely to encounter grade problems when processing large text images. In addition, they usually contain millions of parameters requiring large quantities of information and computing resources. A new class of ML algorithm known as Gated Convolutionary Networks recently has shown potential for complementing CRNN modelling methods. This paper therefore introduces a new HTR design, based on Gated-CNN, with less parameters and less layers that can circumvent modern HTR architectures. The experiment confirms that the model proposed has clinically important recognition effects, beating the previous HTR systems of 5 relevant manually reported benchmarks by an average of 33 per cent. In addition, even in the event of little training data, the proposed model will achieve satisfactory recognition rates [52].

(Dai et al., 2019) analyse that Handwritten text recognition is still an open topic for study in the field of recognition of optical character (OCR). This paper provides an important approach to developing handwritten method of text recognition. This study uses a supervised learning approach to use the 3-layer Artificial Neural Network (ANN). Therefore, bitmap description of input samples is used as feature vector for selecting highly optimal feature vectors for the accuracy of any text recognition device. The feature-specific vectors are normalized first, and added to the ANN including the produced target vectors. In order to ensure a general application of the systems against new inputs, 55 samples of each English alphabet are used as an ANN training process. This paper uses two different study algorithms. In order to address various characters, input in an image, twist and rotate image, added image processing

algorithms are created. The qualified method gives the unseen picture an average accuracy of over 95% [53].

(Ingle el al., 2019) analyse that the emphasis is on the development of state-of-the-art designs for line identification on small businesses, through handwritten arabic recognition systems. But it raises new challenges to add HTR functionality to the broad multilingual OCR system. Three problems in the construction of such systems: data, efficiency and integration are addressed here. First of all, collecting sufficiently established training data has been one of the greatest challenges. We solve the problem through using online manual data obtained for an online handwriting recognition system in huge quantity. We are describing our pipeline for image data creation and studying how HTR models can be created using online data. We demonstrate that the data dramatically improve models in the condition that only a limited number of real pictures, typically for HTR models, are available. It helps us to endorse a new script at a much lower cost. Secondly, we suggest a model for line identification based on the non-recurring neural networks. With LSTM models, the model achieve comparable precision while improving parallelism in education and lecture. Finally, we demonstrate a clear way to combine HTR models with OCR. It is a solution for transforming HTR into a large-scale OCR scheme [54].

(Rabhi et al., 2019) analyse that an initial handwriting recognition system for offline. Our method of recognition is based on the Sequence-to-Sequence model with the LSTM encoder for temporal order recovery from offline handwriting. Temporary manual recovery consists of two components, which retrieve functions using an encoded LSTM (CNN), and decode the encoded vectors to create temporary information using the BLSTM. Time Recovery is a handwriting operation. We perform a sampling operation to achieve a human-like velocity by taking trajectory curvatures into account [55].

(Rajalakshmi et al., 2019) analyse that Handwritten identification of documents is a difficult task in the area of recognition of patterns. It has a variety of apps where words, alphabets, numbers and other characters are known as mandates. This analysis paper focuses principally on the handwritten text recognition method based on the Convolutional Neural Network. Handwritten identification is basically divided into two kinds: online and offline. The problem with this method is that the manuscript

types written by various authors are very diverse. This character is efficiently recognized and defined by the system. The scope of this analysis document is to reflect the merits and drawbacks of the various techniques employed in designing the recognition method. This paper definitively assists the researcher in creating a new methodology with good architecture and climate in order to deliver more precision and less failure rates [56].

According to (Chen et al., 2018), the Ambidextrous Persons problem of handwritten digit recognition has been an open problem in the field of pattern categorization for a long time. Multiple studies have demonstrated that neural networks excel at data classification. This paper's primary purpose is to develop efficient and trustworthy strategies for the recognition of handwritten numerals by comparing existing classification models. This study examines the performance of NN, RF, DT K-Nearest Neighbor (KNNand Bagging with gradient boost [57] ML classifier models.

(Kaur et al., 2020) determine that the K-NN classifier outperforms the Neural Network in analyzing the writing of ambidextrous individuals with significantly better computing economy and without sacrificing performance. Both of these classifiers outperformed DT, RF and Bagging with gradient boost. We also noticed that the accuracy of the classifier improves as the amount of training data increases. K-NN reaches a processing speed that is nearly 10 times faster than Neural Network, while having an accuracy rate of 96.7 percent compared to 96.8 percent for Neural Network. The data reported in this paper reveals that when employed as a classification algorithm in offline handwritten digit recognition [58], K-NN paired with pre-processing methods is capable of outperforming Neural Network.

According to (Nair et al., 2018), Convolutional Neural Network has demonstrated exceptional performance in the classification of image-based representations of Ambidextrous Persons writing. Recurrent Neural Network (RNN) or its derivatives, LSTM and GRU layers have also been used in conjunction with them to analyze sequences in handwriting recognition, phrase analysis and other applications. Most of the time, CNNs work as feature extractors rather than low-level, manually constructed features for categorization jobs like the ones outlined above. For the Washington and Moore dataset, we describe a technique that uses weights from layers trained on the IAM offline handwritten dataset to build a mid-level picture representation for text.

We show that the transferred representation is capable of capturing a spatio-temporal representation despite differences in writing style and fonts across datasets, leading to significantly improved recognition results. When testing the model with a variety of sample sizes for fine tuning, we find encouraging findings that support our hypothesis that performance is not primarily dependent on the sample size[59].

(Mania et al., 2018) determine that Ambidextrous Persons have been an intriguing development in ML during the past decade. In fact, rising computer processing capacity has enhanced recognition systems' analytical capacities. They have developed a new method based on the integration of two deep neural networks for Offline Arabic handwriting recognition. There are three layers of classification: a Convolutional Neural Network, a Bidirectional Long Short-Term Memory (BLSTM), and a Connectionist Temporal Classification (CTC). We used an IFN/ENIT database that has been enhanced through the use of data augmentation techniques to test our model. Performance is enhanced by the use of a hybrid architecture. It outperforms both manually built and automatically extracted features-based techniques and models. According to the findings of the trial, the rate of recognition is 92.21 percent [60].

According to (Korichi et al., 2018), researchers' interest in ambidextrous handwriting recognition has increased. Due to the underlying peculiarities of the Arabic language, Arabic handwriting recognition is one of the most difficult research areas in this discipline. Despite the recent increase in research, there is still more to be done. In this research, we present a method for recognizing Arabic handwriting based on a Multi-scale Local Phase Quantization descriptor. NV, SVM, and K-NN classifiers are used at the decision level in order to increase the recognition rate. In order to conduct tests, we have created a new database that compiles computer science concepts. Experimental results presented at the end of the paper confirm the efficacy of the suggested strategy and indicate promising outcomes [61].

(Chowdhury et al., 2018) conclude that Ambidextrous Persons are better at multitasking. Businesses aiming to digitize large volumes of hand-marked scanned documents have a huge hurdle when it comes to offline handwritten text recognition from pictures. Recurrent models like Multi-dimensional LSTMs outperform standard HMM-based approaches, which suffer from the Markov assumption and lack the representational capability of RNNs, according to research. In order to map an image

to a series of characters corresponding to the text in the image, we present in this research a novel technique that combines a deep convolutional network with a recurrent encoder-decoder network. With Focal Loss, an improvement on the standard Cross-Entropy loss, text recognition models can be taught to overcome the inherent class imbalance problem. The Beam Search approach is used to find the ideal sequence based on the joint distribution of individual characters to improve the model's decoding capacity. Due to the downsampled input, our model is both memory and computationally efficient as a result. The experimental results were compared to two publicly available datasets: IAM and RIMES. 3.5 percent and 1.1 percent, respectively, of the assessment set of both datasets, surpass the current state of the art in word-level accuracy [62].

(Vaidya et al., 2018) analyze a unique strategy for offline handwritten character detection in Ambidextrous Persons using deep neural networks. The availability of vast amounts of data and the emergence of numerous algorithmic advancements have made it simpler to train deep neural networks in the contemporary world. Due to the availability of GPUs and other cloud-based services such as Google Cloud Platform and Amazon Web Services, the amount of processing power required to train a neural network has skyrocketed. We have built a handwritten character recognition system based on image segmentation. In our system, OpenCV is used for image processing, while TensorFlow is used for neural network training. This system was constructed using the Python programming language [63].

(Wang et al., 2018) analyse that an Ambidextrous Persons efficient segmentation-free approach for the recognition of Chinese text by means of a hybrid neural network hidden Markov model. The handwritten Chinese txt file is consecutively modelled on HMMs with one character class each within the general Bayesian system, while the NN-based classificatory is used to measure the later likelihood of all HMM states. Check the effectiveness of the NN-HMM system for offline HCTR in order to thoroughly explore the key issues in function elimination, character modelling and language modelling. Second, the deep traditional architecture of the neuronal network with a well-built extractor is being studied. For the exercise, forced alignment and sequence preparation may lead to substantial advantages, in addition to the crossentropy criterion at the Frame-Level. Secondly, a deep convolutionary neural network with taught automatic discriminatory features reveals its superiority to DNN in HMM. Further, the N NN classificatory should generate 19900 HMM as classification unit through a high-resolution modelling within each character, in order to solve the difficult problem of separating very confusing classes due to the broad vocabulary for Chinese characters. DNN-HMM provided a guarantee of a 5.24%-character error rate with a good deal between computational complexity and recognition accuracy on the ICDAR 2013 competition challenge for the CASIA-HWDB database. DCNN-HMM can hit a best published 3.53 percent CER, as far as we are aware [64].

(Elleuch et al., 2017) analyse that Despite its maturity, ambidextrous persons handwriting recognition still poses so many research issues which are an obstacle for the Arabic Script. We discuss help of Arabic Handwritten Script recognition vector machines in this paper. The method proposed takes the manufactured function as input to a monitored algorithm of learning. Descriptor of directed gradients is used as built feature to extract functional vectors from textual images. The RBF Kernel Multiclass SVM has been selected and reviewed in the IFN/ENIT Arabic Handwritten Database. The function extraction method's efficiency is comparable to Gabor filter and demonstrates the efficacy of the HOG descriptor. We present results for simulation so that we can show that the proposed system-based SVM classification works correctly [65].

(Sharma et al., 2017) analyse that Recognition for the character of ambidextrous individuals is a technique of detecting and identification of alphanumeric characters from the input images. For the identification of character, OCR by combining matrix, fugitive logic are several available. In this paper, deep learning principles are employed to create an effective character identification algorithm. The character segmentation network is created by different extraction methods. The classification proposed gives high precision than the current methods and is ideal for use with high precision end-to-end systems [66].

(Yahia et al., 2017) analyse that a new system for online graphics graphic identification of Ambidextrous persons Arabic handwritten. We work primarily on the usefulness of the beta-elliptical model for segmenting and extracting characteristics to identify online handwriting. Our approach is indeed to decompose the input signal into a continuous part of a pseudo phrase called graphs based on an alpha model. The segments are then represented in the mixture of geometric characteristics and the

modelling of trajectories. The performance of the features considered was assessed using the neural feed classifier. The efficiency of the proposed method is shown by experimental results using ADAB benchmarking [67].

(Subhi et al., 2017) analyse that the Ambidextrous people Arabic is one of the key languages that receives little attention from Arab researchers and international researchers in particular. In comparison to dealing with Latin, Japanese or Chinese character identification, the identification of the Arabic character is considered to be one of the most difficult problems due to the very cursive nature of the written Arabic script. In this paper, we proposed an Arabic off-line handwritten device of isolated detection, a backbone artificial neural spreading network, which was based on new methods of extraction. CENPARMI data base implements and checks the work presented. 96.14 percent was reached with competitive precision of identification. This result encourages us and other scientists in this area using the extraction methods we have used for other Arabic types in this study [68].

Handwritten text identification is the duty to transcribe manuscripts into digital text. This is a technology which is very important in today's world. We have focused on writing messages through our own hands, which may result in mistakes, before the correct implementation of this technology. Physical data cannot be saved and processed easily. Owing to the traditional way of storing records, data have been severely lost throughout history. Modern technology allows people to purchase data on computers, which allows them to easily store, organize and access data. If the handwritten text recognition program is used, the usually saved data is easier to store and access. In addition, it offers greater data protection. Writing appreciation is a daunting job for many reasons. For many reasons. The main explanation is that numerous people have different writing styles. There are also other characters such as capital letters, small letters, digits and special symbols, which are the secondary explanation. A big dataset is therefore needed to create a neural network model, which is nearly exact. Published text acknowledgment is split into online and offline acknowledgement. Therefore, geometric and temporal knowledge is accessible when the text to be recognized is composed. On the other side, the offline identification is achieved following the written text. The resulting images are processed and the text is captured. The neural network is trained in word-images from the IAM dataset to create the Handwritten Text Recognition model. Hand-written text identification was

possible, but their accuracy was very poor or relatively limited. The use of OCR, such as speech recognition, frequency radio, visioning systems, magnetic strips, bar code and optical mark reading, was discussed in this paper. The MNIST dataset, a numerical data set, is a common learning activity. Best practices for innovative neural networks Simard, Steinkraus and Platt have been able to examine visual materials in order to explain the use of neural networks (CNNs). A Paper by Pham et al. used a CNN 2-layer, which was applied to the Duration Short-Term Memory cells, a twoway recurrent neuronal network. Multidimensional RNN structure applied the best model. Another paper on 'Processed Text Recognition' dealt with datasets and corrected them during pre-processing with slanted terms [69].

Handwritten acknowledgement can be made online and offline in two ways. The offline is a detection system carried out after digitalisation of the numbers. On the other hand, an online system for recognition can hold details, like stroke, in real time. This is normally on a surface that is resilient to stresses and protects the stroke. The method of converting the digital image of handwritten text into editable text on-line is the identification of handwriting. Handwritten recognition is very difficult because there is a slight difference in writing that makes it very complex to be remembered. The hand-written design of a different person in size and form leads to a similar shape in different numerals. Features are extracted from any numeral captured in order to identify optical characters. In a certain class, each number has its own pattern. As can be seen in the identification of optical character, the research community is still in high demand. Previous manuscripts include directional distance, gradient-based characteristics, wavelet-based characteristics, pixels of distance, convex hull-based characteristics. Recently, Deep Learning has made further progress in identifying objects. However, differentiating the characteristics of different languages is not well understood. This includes investigation and detection of new patterns with less complicated algorithms which can be precisely identified for complex handwritten characteristics. In this article we have proposed a state-of-the-art CNN method for recognition of the multiple script handwritten numerals, demonstrating how effectively the discriminant characteristics of the original image have been tested and later how the high recognition rate has been replicated. We have described the variance character of the individual imagery at the levels of the simulations and a high detection rate is achieved through CNN, which is useful to construct a handwritten

numerals automatic detection system to overcome real-time problems. Uncontrolled handbooks such as cursive, block and incline, which result in huge variance in writing styles, overlaps and the interconnection between characters, are the major bottlenecks in this system. These systems have been developed to ensure high precision and reliability. This article summarizes numerous techniques in the handwritten method of recognition that can enable researchers to recognize the study gap. The future work of this paper is to introduce a robust technology that provides greater precision and less error rates [70].

LIST OF REVIEW OF LITERATURE:

Author (year)	The topic ofthe paper,Name of thejournal, volIssue no.	Varia	ble used	Research model or tools used	Technique and Results
(Kef et al.,	"A novel	- Of	f-line	Fuzzy	Authors used
2016)	fuzzy	ch	aracter	ARTMAP &	Fuzzy
	approach	ree	cognition	Zhang-Suen	ARTMAP
	for	- Ha	andwritten	thinning	neural
	handwritten	Aı	abic	algorithm	networks on
	Arabic	- Ps	eudo-Zernike		IFN/ENIT
	character	m	oments		database and
	recognition"				reported a
					high
					recognition
					rate.
(Zaiz et	"Puzzle based	- O	CR	SVM	Authors
al., 2016)	system for	- Ha	andwritten	classifier	designed
	improving	Aı	abic	method	handwritten
	Arabic	- PA	AW		text as a
	handwriting	- Pu	zzle		puzzle.
	recognition"				Concepts of
					feedbacks to
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					and overlap
					of characters
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					Authors
					attained
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					performance.
(Echi et	"Impact of	- A1	abic	Bayesian	Authors
al., 2017)	features and	Re	ecognition	networks and	identified the

Chapter 2

Literature Review

	classifiers	- OCR	Neural	impact of
	combinations		network	several
	on the			features and
	performance of			classifier
	Arabic			combinations
	recognition			on OCR
	systems"			performance
				and
				developed a
				robust system
				to attain
				satisfactory
				performance.
(Boufenar	"Investigation	- Handwritten	Deep	Authors used
et al.,	on deep	Arabic Character	Convolutional	deep
2017)	learning for off-		Neural	Convolutional
	line handwritten		Network	neural
	Arabic character			network
	recognition			under Theano
	using Theano			framework
	research			for Arabic
	platform"			handwritten
				character.
(Dinges et	"Automatic	- Arabic	Error	Authors used
al., 2017)	recognition of	handwritten	correction	synthesis
	common Arabic	words	module	system to
	handwritten			produce
	words based on			Arabic
	OCR and			handwritten
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(Mouhcine et al., 2018)"Recognition of and cursive Arabic taining based on HMMs"Recognition Handwriting Arabic text HMMsHidden Markov ModelsAuthors used Hidden2018)handwritten text training based on HMMs"HMMs Embedded trainingHMMs Embedded trainingHMMs Embedded trainingHMMs Embedded trainingHMMs Embedded trainingHMMs Embedded training(Tamen et al., 2017)"An efficient for Arabic- Arabic handwritingK-NN, MLP, SVM & ELM trainingAuthors used atabase and found improved recognition.(Tamen et classifier system for Arabic classifier system words recognition"- Arabic corthogonal moments - Chebyshev moments - Statistical and contour-based featuresSVM & ELM sused.SVM, ELM is used.(Chaouki et al., immune system isolated handwritten tet al., immune system isolated- Handwritten ArabicSupervised learning technique immune system on IFN/ENIT benchmark						
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Chapter 2

Literature Review

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(Xiao et	"Building fast	-	Handwritten	Convolutional	Authors
al., 2017)	and compact		Chinese	neural	proposed
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					found
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(Luo et al.,	"Offline	-	Offline	Deep	Authors
2018)	handwritten		handwritten	learning, Data	proposed a
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Chapter 2

Literature Review

					database.
(Zhang et	"Online and	-	Handwriting	Convolutional	Authors used
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	handwritten	-	Chinese	network &	of Convent
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(Yang et	"Drop Sample:	-	Handwritten	Convolutional	Authors
al., 2016)	A new training		character	neural	proposed a
	method to		recognition	network &	training
	enhance deep	-	Domain-specific	Deep learning	method using
	Convolutional		knowledge		CNN. They
	neural networks				found a new
	for large scale				state of the art
	unconstrained				results on
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	character				Chinese
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					dataset.

Handwritten text recognition is a technique nowadays very important in this country. We depended on writing with our hands, which could cause errors, prior to implementing this technique correctly. It is difficult to effectively store and access physical data. Modern day technology allows people to store their data through computers, where data can be stored, handled and accessed far more easily. It also provides the data with high standards of confidentiality. The Google Lens is an example of manuscript text recognition program. Hand-written articles are understandable to humans because we have the capacity to think. Deep learning and artificial intelligence may also be used to induce the machines with the same ability. The research that solves such a problem is called the OCR or sometimes called the identification of the optical character. It is a device used for translating electronic and image documents for machine readability into digital text. Some features such as the histogram of directed gradients and many techniques such as image recognition, character recognition, facial detection, etc. have been offered over the last couple of decades, which are used to extract important characteristics. OCR has two more forms, HCR, intelligent handwritten recognition and PCR. We need more power of identification because of the various handwriting types of humans. The writing style of the individual is always different than he writes several times.

Furthermore, OCR is characterized by its acquisition of documentation as two forms of of offline and online recognition systems. The offline recognition scheme protects texts already written by different input methods. Whereas the writing is remembered simultaneously in an online recognition scheme. In creating an effective and precise, handwritten text recognition system deep learning will prove to be a savior for life. The use of deep learning in design is a key means by which computers with human abilities are trained. Neural networks are especially helpful to solve problems not defined as simple steps including such problem solving, object classification into various classes, mining of data and sequence prediction. Maybe pattern recognition is the most common use of neural networks. A different class of goal vectors and the corresponding input vectors are introduced to the neural network. The input can vary from simple data of one dimension to multiple dimensional information. After the indepth learning is trained using the train data, the patterns/class in the invisible data can be used for definition. The main purpose of this study is to build an effective, deep learning system for the recognition of manuscript and numbers for english characters. Man's intellect and learning can quickly comprehend various manuscripts.

ML (ML) and AI will lead to the same skill in machines. A manuscript recognition machine is indicated so that characters can be collected and found in paper files, images, touch display devices and other devices and converted in device encoded form. The area concerned here is known as the identification of optical character (OCR). From late on the digitisation of the top to bottom of the books and documents

that existed before digital media was commonly used has generated excitement. For different activities, digitized text can be processed quickly and operations such as search and sorting are easier to do. OCR can be divided into two types - handwritten recognition of character (HCR) and typed recognition of character (PCR). PCR is relatively easily compared to HCR as the number of printable fonts (such as Calibri, Algerian, etc.) is much smaller than the number of numerous, highly diverse handwritings. In the categories of Offline Recognitions and web recognition HCR is also widely distributed. Image. 1 demonstrates the OCR device hierarchy. Online recognition is a mechanism that recognizes characters as users write the text in real time. The characters of written documents are remembered in the offline recognition. Off-line identification is typically used by instruments such as optical scanners or photographs (using the camera). For this role, different image processing and neural network models are widely used.

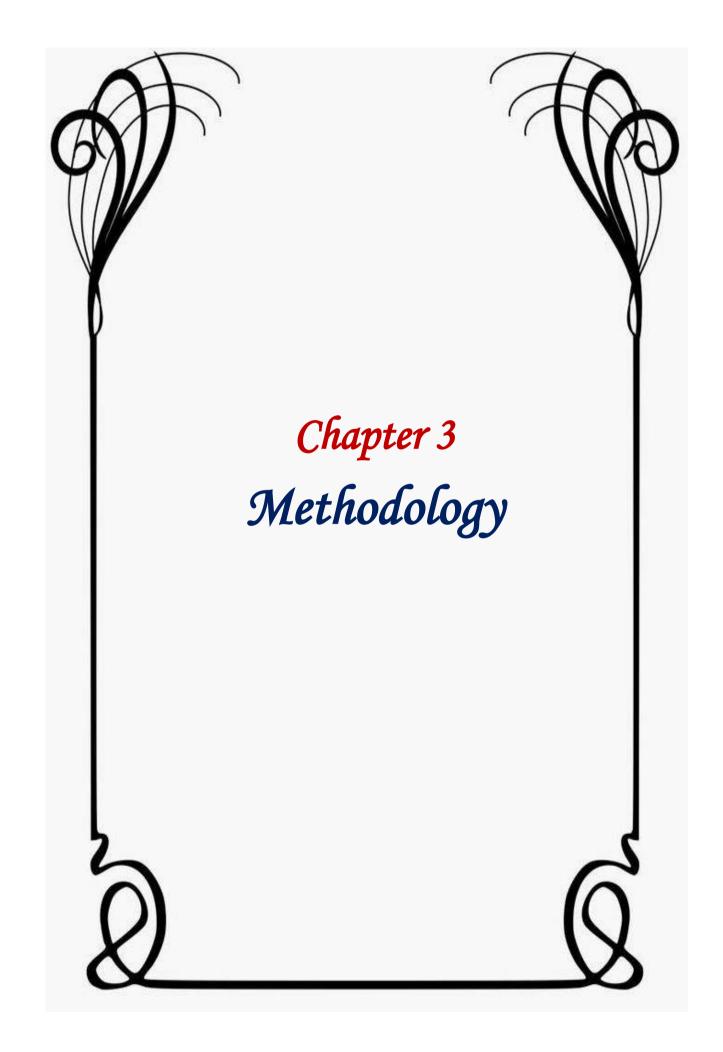
Offline recognition is harder, less exact and has a low recognition rate because we have no users strokes. In the other hand, we have pen strokes of users in online recognition and therefore it is faster, more precise and a higher rate of recognition. OCR involves the pre-processing, segmentation, extracting, classifying, and recognizing processes. The input we give in one step is the later step output. The pre-processing problem is about noise reduction. Lines, words and characters are segmented in segmentation paragraphs to allow them to be recognized correctly. Each character is represented in feature extraction process in the form of feature vectors that are its identity. After extraction, an efficient method is used to classify various characters, and identification is called operation. The accurate and effective technique and the dataset of the device banks. A thorough comparison of some research projects in this area is seen in this study. Based on this, it is possible to conclude with precision, efficiency and some other parameters for different methodologies [71].

Handwriting recognition can be of two types, both off-line and online. In the offline method, the feedback is obtained by inspecting the text written mostly on paper using a pen/pencil in the format prescribed. The two-dimensional dimensions of successive points are interpreted as a function of time in an on method. The input is thus determined by means of transducer devices such as digital tablets or digitizers. The online method works in real time, but the offline solution could provide a higher degree of accuracy in character recognition. These devices can be used efficiently,

such as mail sorting, bank retrieval, document reading and offline handwriting recognition, in a variety of applications. Classification followed by differentiation and function extraction is a first step in every handwritten method of recognition. For the creation of the input image in the segmentation form, pre-processing is primarily essential. The segmentation is divided into individual characters and each character is then resized to the training network by m x n pixels. The selection of a suitable feature extraction method is the most critical factor to achieve high recognition efficiency. In particular for offline handwriting recognition systems, optical character recognition is very important. Hand-written offline identification systems vary from hand-written online image classification. In certain contexts it is indispensable to handle vast volumes of script data.

The automation of the process of transcription of ancient documents, which takes the complicated and irregular nature of the writing into consideration, is one example. The identification of Arabic optical language is slow compared to other languages. Arabic alphabet is that several characters have similar forms, but with different points in relation to the main character. Furthermore, in addition to being used in Persian, Urdu and Pashto languages, Arabic alphabet is commonly used by people from various countries, including all Arabic countries. Arabic hand-written recognition will be useful for converting many documents to electronically available digital format. Reading and automatically sorting mail off the envelopes, making it easier for blind people to read, reading customer-filled forms, automating offices, archived and retrieved texts and developing machines for human beings Deep Learning is a new ML framework for data representation. DL algorithms took the highest position in the field of object recognition because of their high improving performance [72].

Deep Learning is a modern ML framework for data representation learning. Thanks to the high-performance improvements provided, DL algorithms have taken the top place in the recognition object field. Convolutionary neural networks are composed of neural networks implemented in many areas and provide effective solutions for many issues where there is a variability of translation such as object recognition element recognition applications. However, a lot of training samples are required for CNN DL solutions, and computing needs for the system. However, the acceleration in the development and availability of low cost, high-speed computer hardware, high-performance computing networks and software enabled the use of computer-cost technology. There are a number of Deep Learning frameworks. TensorFlow, which was released by Google in 2015, is one of the most popular libraries. It is an open-source code in the language of programming C++ that is very useful for GPUs. Keras, a higher-level API built over TensorFlow, is another simpler framework. Keras uses Python to make programming easier than indigenous TensorFlow codes. This paper will thus discuss the construction of a robust CNN DL model to solve TensorFlow/Keras AHCR problem. This technology is designed to efficiently outperform traditional AHCR algorithms without the need for feature development and very long training time [73].



CHAPTER-3

METHODOLOGY

3.1 Introduction

Character recognition is a type of a machine to understand and transmit character information from multiple causes such as electronic documents, photographs, touchpad devices, bank checks, etc. Handwritten and computer character recognition is an emerging research field and is widely used by banks, offices and industry. OCR operates in phases such as preprocessing, segmentation, detection and recognition through the neural network convolution. Despite the number of resources to writing technology, many people still tend historically to use their notes: pen and paper.

However, the handwriting text is disadvantageous. Physical records are not easily stored and accessed, searched effectively and exchanged with others. So, since records are never converted to digital format, a lot of valuable information is lost or not verified. We have therefore decided to resolve that issue in our project because we believe that managing digital texts significantly easier than managing written text lets people access, scan, exchange and review their records more efficiently and also enables them to use the chosen writing form. The Urdu language originates from the Indo-European languages of the Indo-Aryan family and is one of the most famous languages of the subcontinent. Urdu is the main language of Pakistan that uses Urdu and Arabic as reading scripts. There are estimated 328.01 million official languages in the Arab world and 697.4 million native speakers worldwide. The writing style of the Sentiment analysis is right to left. However, the numbers are written from low to high. Urdu uses the Nastalik style to write scripts. The Nastalik script has several challenges in terms and design of the OCR. The OCR is one of the most effective and oldest problems with ML and pattern recognition.

The goal of this project is to explore further the challenge of categorizing manual texts and converting manual text to digital formats. Handwritten text is a very broad term, and by defining for our purposes the definition of written text, we decided to narrow the project scope. This project is designed to classify the picture of any

handwritten word that may be cursive or block written. This method can be integrated with the algorithms to segment word images in a particular line image and to combine them to segment line images into a specific image in a handwritten whole page. This project is possible with algorithms. Our project can be turned into an end-user deliverable and a full-function model that will help users overcome the problem of translating hand-written materials into a digital format by instructing the user to take a picture of a section of notes. While some additional layers need to be applied to the top of our model to establish a fully functional end-user distribution, we assume that the most interesting and daunting part of this problem is the classification part, so instead of breaking lines in words and lines [74].

The next major change in high OCR precision was the use of a Hidden Markov model for the OCR mission. This method uses letter as a state, which allows to account for the meaning of the character when the next hidden variable is specified. This resulted in greater precision than the Naive Bayes method and the extraction technique. The key downside remained the manual abstraction features, which involve prior language comprehension and were not especially robust in terms of handwriting diversity and complexity. CNNs for the issue of using a sliding window to take text in the wild and defined text. A sliding window passes through the picture in order to find a possible example of a character.

A CNN was used for classification of each character, consisting of two convolutional layers, two average pooling and a fully connected layer. Scan, Attend and Read: Handwritten Paragraph Recognition with CNN Attention is one of the leading documents for handwritten text recognition. The method was to take a CNN layer and encrypt the raw image data in a feature map for each scan path. The model will then concentrate on some function maps compared to others. After the attention map was developed, the character will be predicted by the current picture description and status in the decoder. This method was very new since the separation and classification processes were not decoupled as both were within the same paradigm.

The classification is the method by which each character is defined and the appropriate class is assigned to it. Two separate approaches to character recognition classification will be addressed in the following pages. First theoretical recognition of decision-making is discussed. These methods are used to numerically describe the

definition of the character in a function vector. The drawback of this model is that it does not have a language model in which characters and terms are sequenced. It is entirely based on each character's visual classification without looking at the meaning of the word constructed. We have used handwritten images dataset. We have identified and analyzed many classification and regression ML algorithm. This section provides the theoretical and technical walkthrough of the research method used to construct an analytical analysis and prediction of employee dataset using python and ML to forecast handwritten images dataset. The collection of methods used to perform the investigation and estimate the accuracy and evaluates the dataset. It also includes the techniques used to collect data and interpret data [75].

Handwritten Text Recognition (HTR) means handwritten text is transcribed to digital text. It is a very important technology today in this country. We relied on writing texts with our own hands before correct implementation of this technology, which can lead to errors. Physical data can be hard to store and access effectively. Manual work is important to properly organize the data. Due to the conventional data storage system, significant data loss has occurred throughout history.

Modern technology helps people to save data via devices that make it extremely easy to store, organize and access data. Using handwritten text recognition tools, the preservation and access of historically stored information is simpler. In addition, more data protection is given. The identification of handwriting is a difficult task for several reasons. The main explanation is the disparity in writing styles between different people. There are a number of characters including capital letters, special characters, digits and special symbols for the secondary purpose. This involves a broad data set to train a neural network model which is nearly precise. Handwritten text acknowledgment is split into online and offline reconnaissance.

Therefore, geometrical and time knowledge is required when composing the text to be remembered. On the other hand, offline identification is carried out after writing the text. It collects the text and processes the resulting photos. The network was trained in word-images from the IAM dataset to create the Handwritten Text Reconnaissance (HTR) model. Artificial neural networks are used by the framework proposed (ANNs). Multiple layers of the CNN are trained to eliminate relevant characteristics from the entry image. These layers create a 1D or 2D function map that is transferred

to the RNN. layers. In this sequence, the RNN spreads knowledge. The output of the RNN is then mapped to a matrix with a score per sequence element for each character. Since the ANN is trained using a particular coding method, the RNN output must obtain the final text from a decoding algorithm. The Connectionist Temporal classification (CTC) operation is used for training and decoding from this matrix [76].

3.2 Research Philosophy

The aim of this research is to forecast the handwritten images dataset with the use of classification and regression algorithms. Both qualitative and quantitative methodologies are utilized for the research study. Qualitative methodology is used to collect energy characteristics and demographics for predicting important variables as well as to identify factors, while I used the quantitative approach to measure the factors affecting energy variables and to examine the accuracy of the predictive model constructed for predicting retention.

Handwritten identification can be achieved online and offline in two ways. The offline is a recognition device that is performed after digitalization. The online recognition system, on the other hand, will preserve data like stroke in real time. It is normally written on a surface that is sensitive to pressure that holds the stroke. The method of converting a digital image of the handwritten text into a computer word documents has been off handwriting recognition. It is also common in Andhra Pradesh as a southern Indian official language. Telugu is a language of syllabics and is a complete syllable. Formative similarities of various characters are the challenging part of Indian manufactured character recognition. Hand-written identification is very difficult since a slight shift in writing contributes to enormous difficulty. The hand-written style of a different person in type and size leading to different numerals leads to the same shape. India, which consists of 25 official languages, is a multilingual and multi-script country.

Features are extracted from any numeral captured in order to identify optical character. In a certain class each digit has its own pattern. The demand in the research community is still strong, as progress in the identification of optical character. The earlier handwritten character recognition methods include area designated functionality, gradient-based characteristics, wavelet-based characteristics, pixel

distance, convex hull-based features. Recently, the identification of objects has advancements with the aid of Deep Learning. To differentiate between features, however, different languages are not well understood. This includes the analysis and identification of new patterns with less complex algorithms which can reliably identify complex manuscript forms [76].

3.2.1. Research Approach

Handwritten character recognition is the field of pattern recognition and optical character recognition (OCR) for the identification and recognition of characters by the system or by any device. Optical character identification is a method that transforms handwritten text to device text. This paper discusses OCR methods such as digitization, extraction of features, segmentation, pre-processing and recognition. HWCR is discussed using deep learning algorithms such as convolutional neural network.

Recent HWCR techniques are analyzed for native languages and their features and characteristics are evaluated. Here taken the inductive approach to completing my research. Inductive approach is the one in which there is a systematic study of observation and previous research to formulate the theories and finalize trends using different methods and assumptions. With the advancement of the research, the expectations and approach to research change. A range from language recognition and manual character classification to machinery failure detection and medical diagnosis, word pattern recognitions address a wide range of functional difficulties in the processing of information. The acknowledgment of patterns the act of using raw data and taking action according to the "category" of a pattern was essential to our survival, and over the last decades of millions of years we have evolved highly complex neural and cognitive processes. The four most accepted methods for pattern recognition are template matching, statistical grouping, structural and syntactic matching and neural networks. Model matching is the simplest and earliest way of identifying patterns, where a two-dimensional shape or variant of the pattern is normal. While the pattern to be recognized is comparable to the prototype stored in all appropriate pose and scale changes [77].

3.2.2. Research Strategy

To successfully completing the study, we have collected handwritten images dataset factors and attributes for predicting and analysing. Experiments were also carried out on processing, evaluating and predicting on the data set of deep learning algorithms and increasing the precision of the results of the research. A subset of ML that is often used for learning data representations may be called deep learning. This technology, which recently exploded, enhanced the cutting-edge techniques used in manipulating natural languages, objects etc. The deep learning figures out how a computer can change its input variables in each new layer from the representation in the previous layer by using the backpropagation algorithm. Many basic interconnected processors known as neurons are part of a regular neuronal network. A series of activations occurs in each neuron. Input neurons are triggered by sensors that sense the environment, while others are activated by the convolution layers of currently active neurons [78].

3.3 Deep Learning

Deep learning techniques that execute convolutional neural networks have become popular resulting in an increase in significant computational facilities. Due to its ability to analyse a large set of images when working with large datasets, deep learning enables greater strength and versatility [79]. Deep learning algorithm transfers data through several layers and each layer is able to gradually extract features and passes them to the following layer. The initial layers remove low-level characteristics and the following layers combine functionality to form a full representation. In dealing with highly different functions, deep architectures of learning display their full potential that require the capture of a large number of labelled samples by shallow architectures.

In practice the unmonitored pre training enables good widespread performance when the training set is of limited size by placing the network in a parameter area where the regulated gradient descent has less chance of decreasing in a local weight vector [80]. Large numbers of deep networks were used in the visual classification of data sets, such as handwritten numbers, object classifications, human and off robot navigations, as well as in sensor data for audio classification. A very fascinating approach to natural language processing shows that deep architectures can carry out a multiple task of learning, which produces cutting-edge results on daunting tasks such as semantics. In Gaussian processes and time series estimation deep architectures could also be applied to the regression. The latter has shown promising results with the conditional RBM [81].

Deep learning is part of a wider variety of approaches focused on convolutional neural networks with representative education. Lessons may be tracked, semi-monitored or unmonitored. In the areas of information vision, machine vision, speech recognition, natural language processing, audio recognition, social media filtering, machine translation, bioinformatics, medical image analysis, material inspection, and a number of fields dedicated to deep learning architectures such as deep neural grids, strong-reliance belief networks, recurring neural networks and convolutional neural networks. Deep learning adjective refers to the use of many network layers. Early findings indicates that a linear classifier cannot be a universal classifier, and that a system with a non-polynomial input layer, on the other hand, can be unlimitedly large in a hidden layer [82]. Deep learning is a refined adaptation that focuses on an infinite number of small layers, which allows functional use and optimized implementation, with moderate theoretical centrality. In deep learning the levels are also allowed to be uniform for the sake of performance, workability and understandable, hence the 'structured' portion, and to deviate from basically informed connectionist models [83].

3.4. Convolution Neural Network

Convolutional neural networks are the first instances of profound architectures which have successfully produced visual inputs. They are the most popular digital recognition process. They are seen as architectures that are biologically influenced and mimic the processing of "simple" and "complex" cortical cells, which extract information and compositions of the guidelines [84].

Convolutional neural networks primarily aim at integrating local calculations and pooling. The convolutions are intended to provide an invariance in the system's translation since weights only rely on a spatial separation rather than on spatial location. The pooling allows a rather more abstract range of functionality, reflecting the local configuration of input data, to be created by nonlinear combinations of the previous levels. The network extracts and integrates local features successively by alternating convolution layers and pooling layers. The connectivity of the convolutional networks, where each unit is connected to only a small subset of the previous layer in a conversion or pooling layer, permits the creation of networks up to 7 hidden layers. A backpropagation of a bug gradient makes supervised learning easy to accomplish.

On the one hand, RBM and DBN have been subject to a convolutionary framework. Generative pooling technique that scales well with the image size and reveals that middle representations in the higher layer are more abstract. On the other side, the unattended stage of deep learning has been used in convolutional neural networks and the number of labelled examples required can be reduced considerably [85]. Deep convolutional sparse regularization networks also have very promising results for complex visual object detection such as image classification.

Deep learning is a ML tool that, in a deep architecture, combines many non-linear and linear activation units with a high level of data complexity. Deep learning technologies are now applied in a variety of applications. Self-encoding, autoencoding stacking, Boltzmann-restricted computers, deep faith networks, and deepseated neural networks are examples. Both vision systems and the field of medical image processing have gained importance in recent years as a result of CNN techniques. CNN is an evolutionarily inspired multi-layer perceptron variation. Raw picture pixels can also be used to identify image patterns.

A limited pre-processing is undertaken in some cases before the image is transmitted to CNN. These profound networks look at small given input patches, called receptive fields, using neurons of multiple layers and using mutual weights in each convolution layer. CNN puts together three architectural concepts to ensure variation to some degree for size, change and distortion. This is the first CNN model to understand handwritten characters. Each philtre hello is also replicated in CNN throughout the entire field of view. These philtres share weight vectors and bias to create a characteristic map. The shared weight gradient is equivalent to the total of the accessed variable gradients. It is possible to create a feature pattern by performing convolution on a subset of the full image. Biasing and a non-linear philtre application are required in addition to the image or function map. An independent analysis of the input image is made possible by applying a bias value. To shift a node in the other direction, we can use the bias properties. It is possible to regulate the skewed values that are generated during the testing set [86].

CNN is a class of deep nerve networks that is most often used for visual analysis. They are also known as artificial neural shift invariant or space invariant networks because of their shared framework and the invariance of translation. It has image allow analysts, advisory systems, classification of images, image segmentation, medical image analysis, linguistic processing, neural interfaces and economic time series.

Multilayer perceptrons are regularized variants of CNNs. The multilayer perceptron is typically meaning completely connected networks, i.e. each neuron is connected in one layer to the following layer of all neurons. These networks are "fullyconnectedness" to overfit data. Typical regularisation approaches include applying some type of weight calculation to the loss function. CNNs have a different approach to regularisation: using smaller and basic patterns, they take advantage of the hierarchical structure in data and assemble more complex patterns. CNNs are thus in the lower extreme in terms of their connectivity and complexity. Biological mechanisms have inspired emerging networks such that the pattern of connectivity of neurons is like the animal visual cortex organisation. In a restricted region of the visual field, individual cortical neurons only respond to stimuli as the receptive field. Some of the receptive regions of the different neurons overlap, spanning the whole field of vision. Compared with other image classification algorithms, CNNs use very little pre-processing. The network discovers that filters have been manufactured in conventional algorithms. This distinction from previous information and human initiative in the design of features is a significant benefit [87].

3.5. Optical Character Recognition

Optical character recognition or character recognition means the transition from a screened document, a photograph of a document, a scene-photograph or a subtitle text superposed on an image, of written, manuscript or improved text to an electronic or mechanical image text. It is a common technique of digitizing printed text so that it can be electronically edited, searched, stored more compactly, displayed on-line and used for processing machines. The most commonly used data entry type from printed papier data records, whether they are passenger papers, bank accounts, computerized receipts, business cards, mail, printouts or any other relevant documentation. OCR is an area of concept detection science, computer vision and artificial intelligence. Early

version images of each character had to be educated and one typeface worked at a time. Advanced systems that produce a high degree of accuracy in the identification in most of the fonts now have the ability to reproducing formatted image file files that closely match the original page, including photos, columns and other non-textual components, with support for various digital inputs [88].

Optical Character Recognition solves the issue of identifying characters that are optically processed. Optical recognition is conducted off-line after writing is finished, instead of on-line recognition in which the machine recognizes the drawings. Hand written and printed characters are identifiable, but the performance of the input sentences is directed to the results. The more limited the data, the better the OCR system performs. However, OCR computers remain a long way away from reading and human handwriting when it comes to absolutely unregulated handwriting. The machine reads quickly, however, and technological advancements push technology to its ideal continuously. A digital picture of the original text is taken via the scanning process. OCR optical scanners comprise of a transportation system and a sensor that turns light intensity into gray levels. Printed papers are typically black on a white backdrop.

Therefore, it is common practice when performing OCR to convert a multi-level picture to a bilevel digital image. The thresholding process is mostly done on the scanner to save room for memory and machine effort. The process of thresholding is important because the results of the following recognition fully depend on the efficiency of the discrete image. However, the scanner thresholds are typically very clear. A threshold is used, whereby gray levels are said to be black below this threshold and white above. A pre-selected fixed threshold may be appropriate for a high-contrast document with a clear context. However, many records that have been found in operation contrast very widely. In such instances, advanced thresholds are typically those that can change the minimum over the report to adjust the contrast and brightness to local properties. However, such methods generally rely on the document's multilevel scan, where more data storage and computing power are required. Therefore, in connection with OCR systems, such techniques are rarely used, although they yield better images.

The resulting image may have a certain amount of noise from the scanning process. The characters may be smeared or detached depending on the scanner resolution and the success of the technique used for thresholding. A compiler may be used to remove some of those defects, which can ultimately lead to low recognition rates. Smoothing involves filling and diluting. Completion removes short breaks, spaces and hole features, while thinning decreases the line's width. The most popular smoothing techniques pushes a window through the binary image and the window content is protected by some rules. Pre-processing typically requires normalization in addition to smoothing. The standardization is used to achieve standardized format, slant and rotary characters. The angle of rotation must be sought in order to correct the rotation. Variants of Input image are typically used to detect skews on rotated pages and text lines. However, it is not possible to find the rotary angle of a single symbol until the symbol [89].

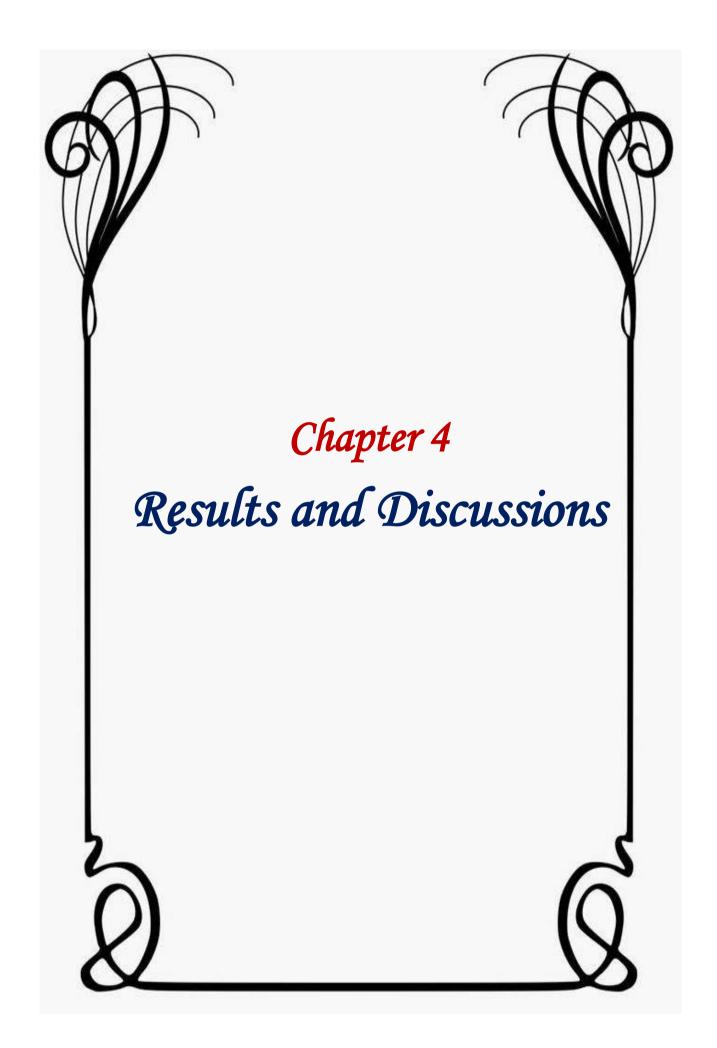
3.6. Word-Level Classification

We had several unique terms in our dataset. Some words images only appeared a few times in our dataset, which made training on those images very difficult for us. This question, together with the broad vocabulary already available in our dataset, motivated us to cut down some of the words from our dataset and not to use those words in our training/validation/testing dataset that we would use for our models. Our frameworks and methods are not difficult and therefore worked with a variety of examples but we chose to reduce the number of words to an effective amount [90].

We first developed a language based on statistically generating random 50 terms in our dataset for our text level classification algorithm. With many CNN architectures, we have qualified our word classifier: VGG and RESNET. Among the first very profound neural networks to appropriate instructional strategies performance on important profound learning tasks was VGG convolutional network architecture.

In violation of the normal practice, VGG employed much lower convolutional filters (3×3) and less field-acceptance channels for the ImageNet 2014 Challenge, thus increasing its network depth. Their model not only achieved first and second place positions in the integration and classification trails, but was also well-constituted for other vision tasks by switching from conventional layers of past CNNs to layers for

different model iterations. But soon after the ImageNet challenge, VGG was first overtaken by the Residual Networks (RESNETs). It was difficult to train deep learning networks, in particular due to the stagnation of gradient flow to earlier network layers. The notion of the remaining layer, which has learned difference in terms of the inputs to function layers. A layer in a recurrent neural network will therefore be able to learn a residual zero and thus retain the input and preserve the gradient in the background to previous layers. This formula allowed RESNETs with layers to train comparatively with previous deep-learning and with many more layers in terms of efficiency and modelling. RESNETs are one of the most likely candidates to attempt advanced profound learning models for image classification.



CHAPTER 4

RESULTS AND DISCUSSIONS

4.1 Study on Handwriting Features of Ambidextrous Persons

When using a deep learning architecture, ambidextrous people's handwriting was classed as a multi-class classification challenge, where the image recognition task is effectively to evaluate a classifier that could reliably identify handwriting on every line of paragraph. It is fairly common for a particular classifier to be applied to numerous data sets at the same time when utilizing a standard deep learning technique. The fundamental purpose of this project is to use deep learning approaches to detect and forecast handwritten text as well as characteristics. Furthermore, rather than the same classification system performing differently with extremely diverse image examples, it is possible that the same classification system performs differently with extremely diverse image examples because different people use different text styles on the same numbers. These problems required the development of ensemble learning algorithms that would improve overall effectiveness while also ensuring that performance remained relatively consistent across many data sets. These algorithms are already being used to solve these problems. Through the use of a CNN-based deletion of data from an image, as well as the algebraic fusion of multiple words in images to categorize fully trained in various sets of edges, which are generated by feature selection on that same original CNN feature set and the removal of data from images, we propose a system. OCR and CNN techniques have been used to identify handwritten text.

During this examination, we categorise the full feature set of three datasets into separate categories based on their characteristics. Techniques such as deep learning have been applied to the detection and prediction of handwritten text. Its purpose is to determine the range of variables whom apply for testing as well as the method of testing. Everything was done on the same computer, with the identical CPU and memory configurations (both of which ran at 1.6 GHz and 8 G). All of the study classifiers were evaluated, and four methods being implemented for training and validation, as well as for model assessment and evaluation.

4.2 Data collection

4.2.1 Sample data of ambidextrous persons

Name	M.D. (Porerisic Science)	by Mr. Siddiqui Mohd Khaja Mi	oinaddin (Research Scholar) 2018
Sex	MEGHA UPADHYP	Ty DOB Date of Admission	
School Name	e -	Nature of Hand	A
Writing Skill Languages)	ENGLISH	Best Writing Skill	вотн
Class		Level (Beginner/Lemer/Exper	0
L	Write J to 20 (1 to 10	with Right Hand 11 to 20 With I	
	the second se	9 10 11 12 15 14 15	
			240 10222 11 Januar 102 (2020)
123	4 (6 78 9	9 10 11 12 13 14 17	5 16 17 18 19 20
2.	Write with both hands	The quick brown fox jumps o	
	and the second second	and drive mount for lumbs o	ver a tazy dog'
The quie	t brown for j	umps over a lease alog	
		umps wer a leasy day	
		umps over a leggy dag - jumps over a l	*zy dog.
The qui	ck boown for	- jumps over a l	· · ·
The quin	Unite with both hands	- jumps over a l	over the lazy dwarf*
The quin	Write with both hands	- jumps over a l	over the lazy dwarf*
The quin 3. The quick	Unite with both hands Write with both hands	- jumps over a l "The quick only goblin jumps imps over the logg du	over the lazy dwarf*
The quin 3. The quick	Unite with both hands Write with both hands	- jumps over a l	over the lazy dwarf*
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The quin 3. The quick The quick 4.	ck boown for Write with both hands " ang * sloblin j # engr sloblin Write with both han	Jumps over a l "The quick onyx goblin jamps imps over the logg du in Jumps over the ids 'A to Z' in small letters.	over the tazy dwarf* Untif Lazy dwast-
The quin 3. The quick The quick The quick 4. A b c d	ck boown for Write with both hands " ange globblin j K onyn globblin Write with both han " f g f i j K l n	The quick only goblin jumps The quick only goblin jumps imps over the logg du in jumps over the inds 'A to Z' in small letters. A nop q * s t u v w x	over the bazy dwarf* Unof Lazy dwart-
The quin 3. The quick The quick The quick 4. A b c d	ck boown for Write with both hands " ange globblin j K onyn globblin Write with both han " f g f i j K l n	Jumps over a l "The quick onyx goblin jamps imps over the logg du in Jumps over the ids 'A to Z' in small letters.	over the bazy dwarf* Unof Lazy dwart-
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The quin 3. The quick The quick 4. A b c d a b c d a	ck boown for Write with both hands " angx slebbin j k onyx slebbin Write with both han " f s h i j k l n e f s h i j k	E jumps over a l The quick onyx goblin jumps vomps over the logg du h jumps over the logg du h jumps over the down of the states. I nop q x states I nop q x states I nop q x states	over the bazy dwarf* Unof Lazy dwart-
The quin 3. The quick The quick A b c d a b c d a	ck boown for Write with both hands " angx slebbin j k onyx slebbin Write with both han " f s h i j k l n e f s h i j k	E jumps over a l The quick onyx goblin jumps vomps over the logg du h jumps over the logg du h jumps over the down of the states. I nop q x states I nop q x states I nop q x states	over the lazy dwart* Unit lazy dwast- 93 UV JR 93



Name*	Husna Tagveon fatoma	DOB	20 112 1 1990
Sex*	Female	Date of Admission	20 112 11110
School/ College Name*	NIRDC & RC , Nanded	Nature of Hand*	left & right.
Writing Skill (Languages)	English, Usdu, Makathi	Best Writing Skill	ear a south .
Class	0	Level (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand Left	ï	2	3	4	5	6	7	8	9	10	
Left			~		8	97 - C		×	10	10	
Hand	11	12	13	14	15	16	17	18	2.8	9	20

2. Write with both hands "The quick brown fox jumps over a lazy dog"

Right The quick becown box jumps over a lazy dog Hand Left Hand The quick brown jox jumps over a lazy dog 3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf" Right The quick anyx goblin jumps over the hazy dwars. Hand Left Hand quick any goblin jumps over the lazy dwarf The 4. Write with both hands 'A to Z' in small letters. Right abcdebghijklmnopgesturwayz Hand Left g tijk lm ropqrstuww Hand e d 5. Signature with Left Hand 6. Signature with Right Hand tur



Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forensic Science) by Mr. Side

diqui Mohd. Khaja Moinuddin (Research	Scholar) 2018	
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Name*	Priyanka S. Borude	DOB	23/10/1993
Sex*	Female.	Date of Admission	2021
School/ College Name*	H.S. M. Collage, Abad	Nature of Hand*	Right & Left.
Writing Skill (Languages)	1	Best Writing Skill	
Class	B. P. ed - II nd year.	Level (Beginner/Lerner/ Expert)	Lernet.

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1	2	3	4	5	G	7	8	9	10
Right Hand Left Hand	1	2_	3	4	5	6	7	8	3	10

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	"The	quick	brown	far	jump	over	۵	Jarah	dog '
Left Hand	The	quick	ьношт brown	for	jump	over	a	lazy	dog'

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	the	quict	c oni	hx gob	li'n	jum	ips i	over	the.	lazy	dwarf?
Left Hand	The	quick	onyx	goblin	ju	mps	over	the	lazy	du	af,

4. Write with both hands 'A to Z' in small letters.

Right Hand	a	b	C	d	e	f	8	h	Ļ	i	K	L	177)	η	0	P	9	FS	tuvw	X
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5. Signature with Left Hand

6. Signature with Right Hand

Juyanka

Siyanton



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Handwriting Siample collectionfor-Completion of Research Thesisin Ph.D. (Forensic Science) by Mr. Saddqui Mohd, Khaja Moinuildin (Research Scholar) 2018

Name*	Radhika Mardhani	DOB	11/09/1394
Sex"	Jemale	Date of Admission	
School/ College Name*		Nature of Hand*	
Writing Skill (Languages)		Best Writing Skill	
Class		Level (Beginnen/Lemen/ Expert)	

Winic 1 to 29	I to 10 with Right Hand 11	to 20 With Left Hand)
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Right	1	-	3	4	5	G	7	8	2	ţı	2 1		2	13	14	15	14	11	18	13	20
Right Hand Left Hand	1	2	3	4	5	6.5	18	9	ιb	11	12	13	14	15	16	17	18	15	20		1

2. Write with both hands. 'The quick brown for jumps over a lazy dog'

Right Hand	The	quick	prenur prenur	ferr	jamps	BARKA	a.	lazy	bog '
Left Hand	1.2	quick	pattern	fox	jumps	6449		Lazy	dog

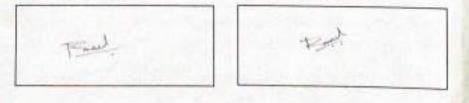
3. Write with both hands 'The quick onyx gublin jumps over the lazy dwarf'

Right Hand	" The	quite	myr	gablin	jumps	out	the	layy	here !	
Left	No.	quich	onya	, geblin	fump	ever	the	Lary	Juny'	

4. Write with both hands "A to Z' in small letters.

Right Hand	A & C DE F GHIJKL M NOP ORSTUVWXYZ a b c d e f a bijk I m noparstuvWXYZ A B c DE F G H 3 MHL H NOPARSTUVWXYZ a b c d e b g bijk ImnoparstudWXYZ
Left	A B C DE FGH STHL H NODARSTVYW MZ
HANG	leecaco Sadi unatara - C-

5 Signature with Left Hand





Name*	Harshoold Suni) woolde	DOB	18/02/2000
Sex*	Perrale	Date of Admission	
School/ College Name*	M.S. My college	Nature of Hand*	Both
Writing Skill (Languages)	Stylut ARB Jenoluh	Best Writing Skill	
Class	B-P.co) 2 years.	Level (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (I to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	12345678310	
Left Hand	11 12 13 14 15 16 17 18 19 20	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick brown for Jumps over a lazy day.
Left Hand	The quick bown for JUMPE over q 1924 dog

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The quick	onyx	Joblin Jumps	over	the	lazy dawnf
Left Hand	The gaick on	ildse Xr	Jury aver the	1024	Auso	a

4. Write with both hands 'A to Z' in small letters.

Right A, b, c, d, e, f, o, h, T, T, K, L, m, n, o, P, $\mathfrak{P}, \mathfrak{R}, S, T, U, V$ Hand Left Hand $\mathfrak{P}, \mathfrak{P}, \mathfrak{P}$

5. Signature with Left Hand

6. Signature with Right Hand



Name*	KIRAN BHAG WAN CHOUDHARL	DOB	12/08/1445
Sex*	FEMILE	Date of Admission	2021
School/ College Name*	M.S.S COLLEGE	Nature of Hand*	Righ Heft .
Writing Skill (Languages)	Rith	Best Writing Skill	
Class	B.PED III Sam (2 years)	Level (Beginner/Lemer/ Expert)	keenet

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

kight Hand	1	2	ъ	4	5	6	4	8	9	10
Right Hand Left Hand	1	2	3	4	5	6	7	8-	9	lo

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick brown fox jumps over a lazy dag
Left Hand	The quick brown fox jumps over a lazy dea

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

Right Hand	The	quick	onyx goolin	Jumps over the lazychuce	4
Left Hand				Jumps over the lazyduat	

4. Write with both hands 'A to Z' in small letters.

Right	ABCDEPGHIGIKLMNOPQRSTUVWXYZ
Hand	ab cale + ghisk In hope to + uv wave
Left	ABCDEFGHIJKLMNOPQRSTUVWXYZ
Hand	" DCDEFGRIJKLEINOPQRSTUVWXYZ

5. Signature with Left Hand

6. Signature with Right Hand

TEENS



Name*	Peratosha Panchal	DOB	soc[lilue
Sex*	Female	Date of Admission	
School/ College Name*	Mam College	Nature of Hand*	left hand
Writing Skill (Languages)	English	Best Writing Skill	L.
the second	BPED (Roust your)	Level (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	123456789 10 11 12 13 14 15 16 17 18 19 20	
Left Hand	11 12 13 14 15 16 17 18 19 20	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

	The quick brown sox jumps over a gazy dog	
Left Hand	The grick brown for Jumps over a bay dog	

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The	Nick	ontx	goblin Jumps	own the lease clarest
Left Hand	The	quick	опух	goblin Jumps	over the bay dwarf.

4. Write with both hands 'A to Z' in small letters.

Right	ABC PEFGE Abcdegg hilk hno Barston
Hand	WXYZ
Left Hand	abcdelghijklmnopgraturwxyz

5. Signature with Left Hand

Brebat





The second		To excerning the second second by	and a set
Name*	Vinek Bonaware	DOB	21-4-1999
Sex*	Male	Date of Admission	
School/ College Name*	MSM College Przsical Education	Nature of Hand*	Right
Writing Skill (Languages)	English	Best Writing Skill	Right hand
Class	6	Level (Beginner/Lemer/ Expert)	Baggners

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1,2,3,4,5,6,7,8,9,10	
Left Hand	11, 12, 13, 14, 15, 16, 17, 18, 19,20	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The	quick	brow	n East	jumps	our	-a lazy	dag	
Left Hand	The-	quick	anawan	Ence	jumpe	Quer.	a Jozy	dag	

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right The quick Onyon Joblin Jumps own the lazy devery Hand The quick Onyx gobles jumps Quese the logy duouf Left Hand

4. Write with both hands 'A to Z' in small letters.

Right Hand	a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, P, &, x, s, t, U, V, W, X, Y, Z
Left	a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, P, 4, x, s, t, u, v, w, x, y, z
Hand	a, h, s, d, e, f, g, h, i, j, k, l, m, n, o, P, q, x, e, t, u, v, w, x, y, z

5. Signature with Left Hand

6. Signature with Right Hand



Name*	Anti Ramkisan Charde	DOB	14/05/2000
Sex*	Female	Date of Admission	
School/ College Name*	M.S.M College	Nature of Hand*	Right
Writing Skill (Languages)	Marathi	Best Writing Skill	Normal.
Class	B. Red I year,	Level (Beginner/Lerner/ Expert)	expert.

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1	2	3	4	5	6	7	8	9	10
Left Hand	11	12	13	14	15	16	7	18	19	20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The	quick	brown	fox	jump5	over	a	lozy dog'	2
Left Hand	The	quic	k long	vh	fox	jum	ps.	lozy dog' Over- 9	lazyólog

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right	The	quick only goblin jumps over the lazy awart.
Left	-	i i i i i i i i i i i i i i i i i i i
Hand	The	quick only goblin jumps over the dwar

4. Write with both hands 'A to Z' in small letters.

ABCDEFGHIJKLMNOPORSTOVWXYZ Right Hand Left K Impoppostave Hand C C

5. Signature with Left Hand

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Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forefisic Science) by Mr. Siddiqui Mohd. Khaja Moinaddin (Research Scholar) 2018

Name*	Pawara sunido	DOB	10-10-2001
Sex*	Female	Date of Admission	
School/ College Name*	mp low college	Nature of Hand*	teft hand
Writing Skill (Languages)		Best Writing Skill	
Class	BALLE - T YEAY	Level (Beginner/Lemer/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	ł	2	3	4	5	67	18	9	10	M	12 1	4 19	15	16 1	7 18	19	20	
Left Hand	1	2	2.3	3	4	5	6	7	8	9	10	U	12	13	14	15	20	20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	1-TRE	quick	משפכט	Fox	jumps	ONGA (1 largy	dog			
Left Hand	The	quic	k ba	own	Fox	jumps	Gvé	т о	lazy	dog"	

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The	quick	Dayx	goblin	jumps	over	the	Inzy	dum	Et.
Left Hand	The	quict	n ont	x gob	in jum	P.5 0	ver	the	lazy	d everf

4. Write with both hands 'A to Z' in small letters.

Right	Abcdefghijfimnopgestuvwyz	
Left	Abcdefghijfimbopgestuvwyz AbcdefghijkimNopgestuvvyz Yz:	X
Hand	42.	

5. Signature with Left Hand





Name*	Priyanka Narayon Sase.	DOB	26/08/2000
Sex*	Fernale.	Date of Admission	20/10/2021
School/ College Name*	Or-Babasaheb AmbedKar HarathWada University	Nature of Hand*	Right hand
Writing Skill (Languages)		Best Writing Skill	
Class		Level (Beginner/Lerner/ Expert)	Beginner

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand												18	14	15	70	17	25	19	20
Left Hand	u	12	13	-14	1	5 1	16	17	18	(9	20								

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick brown fox jumps over a lazy dog.	
Left Hand	The quick brown for jumps over a lary dog.	

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The	quick	onyz	goblin	jumps	OVET	the	lazy	dwarf.
Left Hand	The	quick	onyx	goblin	jumps	Over	the	lazy	dwarf

4. Write with both hands 'A to Z' in small letters.

Right Hand	A	в	C	0	E	F	61	H	T	2	H	1	H	N	0	P	G.	R	s	τ	U	V	
Hand	W	X	1	4					1	*	1		4.		-	1	-					1 11	
Hand Left Hand	A	P	2	è	DE	F	G	H	I	J	k	L	M	N	0	1	y	K	S		1	1.1	
Hand			_												L	13	K 1	٢.	2				

5. Signature with Left Hand

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		riana	wrant						nuddin (refisic Scie	ince) of
Name*	-	She	addl	x Ja										
Sex* Fernale School/ College Name*		A	de alera		e of Ad	mission	1	-	-					
		remale					ure of H	fand*		20.2			111.04	1
										Right Hand/Left har			hand	
Writing Sk						Bes	t Writin	ıg Skill		0				
Language: Class	5)		_	_		Le	al.	152		_				
-sachts								Lemen	Expert					
Right			100	1111		1.1.1.1.1.1	C	100 C C C C C C C C C C C C C C C C C C	Vith Left	11 Y 860				
Right			1 10 29	1111		1.1.1.1.1.1	C	100 C C C C C C C C C C C C C C C C C C	vinh Len	Hand)	-			
Hand Left		2	3			6				10				
Hand	11	12	13	14	15	16	1F	18	19	10				
	2	Write	with be	oth han	ts Th	e quick	brown	fox jur	nps over	a lazy o	log*			
Right Hand									over			3y <	lig :	
Left Hand	The	qui	ick	bee	r.M	fox	ju.	1928	ove	e a	la	39 0	log .	
	3.	Write	with be	oth han	ds 'Th	e quick	onyx g	oblin jı	imps ove	er the la	zy dw	urf		
Right Hand													dua	÷f.
Left Hand	The	дŵ	k	ony	r y	pobli	n j	imp	8 -044	e A	a	lazy	dwa	f
	4.	Write	with b	oth han	ds 'A	to Z' in	small le	sters.						
Right Hand					1.00				92					
Left			1	0	4	: 11	1.00			14			xy	

5. Signature with Left Hand

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	玲	음왕

Name*	Sanika Chalesao.	DOB	24/02/2003
Sex*	Female	Date of Admission	-
School/ College Name*	MP Law college, Aurongabad	Nature of Hand*	Right hand
Writing Skill (Languages)	English	Best Writing Skill	
Class	BA LLB ISt yr	Level (Beginner/Lemer/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1	2	3	4	5	6	٦	8		9	10
Right Hand Left Hand	11	12	-15	15	13	I	5	17	18	13	2.0

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	"The quitck brown fox jumps over a lazy dog? "The quitck brown fox jumps over a lazy dog?	
Left Hand	The queick boown for jumps over a lary day?.	

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

Right Hand	The	quick	oryx	goblin	jumps	0.485	the.	lazy	dwarsf?	
Left Hand	The	quick	e dia	gobita	jumpes	GA89.	the)uzg	dwersf? dweef	

Right Hand	a	÷	Ь	c	d	e	t	3	h	1	i	ĸ	1 1	n r	1 0	o p	9	ĩ	s-t	4	. 5	 J X	Y	z
 	a																							25

5. Signature with Left Hand

Gubalazar	





Name*	Jaisbnavi Mangulkar	DOB	16108 94
Sex*	Female	Date of Admission	
School/ College Name*	Marathwada Sanskinutik Mandal Physical Education Coll Muransped	Nature of Hand*	Right
Writing Skill (Languages)	English	Best Writing Skill	
Class	B-P-E-D -IYear	Level (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	12345678910
Left Hand	11 12 13 14 15 16 17 18 19 20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

	The quick brown for jumps over a Lazy dog.
Left Hand	The quick brown for jumps over a Lazy dog

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The quick only goblin	jumps over the lazy dwarf
Left Hand	The quick only gob!	in jumps over the lazy dwood

4. Write with both hands 'A to Z' in small letters.

Right Hand	ABCDEFGHIJKLMNOPQRSTUVWXYZ
Left	ABCDEFGHIJKLMNOPQRSTUVWXYZ
Hand	abcdefghijkimnopqnstuvwxyz

5. Signature with Left Hand



Name*	1 m 1	DOB	(Research Scholar) 2018
Sex#	Rubijo .G. Jire	Date of Admission	16 - 09 - 2004
School/ College Name*	Monischand Parade Law college	Nature of Hand*	Rîght
Writing Skill (Linguages) Class	English	Best Writing Skill	Right
1202	8.A.118 -I	Level (Beginner/Lemen/Expert)	
Right Th	write with both hands "The e quilck brown ne quilck brown	fox jumps ave	ma lazy dog'
	Write with both hands 'The e		- 0
	autick among appli	n jumps over	the lazy dwarf'
Right Hand	and and and and an other states of the second state	an inter have West interplation of the second se	over the lazy dway

5. Signature with Left Hand



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-	Tidu	100-		
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Ð.	14	ĩ	v.	£.	11	ŝ	ï	T	¥

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Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forefisic Science) by Mr. Siddiqul Mohd. Khaja Moinuddin (Research Scholar) 2018

Name*	DIVYA SINGH	DOB	21-02-2002
Sex*	FEMALE	Date of Admission	24-12-2021
School/ College Nane*	HP LAW WILLEVE . BURANGOBAD	Nature of Hand*	RIGHAT HAND
Writing Skill (Languages)	ENGLISH	Best Writing Skill	
Class	BALLB-1	Level (Beginner/Lemen/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand Left	1	2	3	4	5	6	7	8	٩	10		
Left Hand	11	12	13	3	14	15	14		17	10	19	1 20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The	ашіск	6910WN	fox	jumps	oven	a	bzg	dog .	
Left Hand	The	quict	balawn	Pax	jumps	010	H O	- laz	y dog.	

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right	The quick	onyz	goblin	jumps	aver	the	1029	dwars .
Left Hand	The quin	ok ong	pe gob	lin ju	mpru	640	t that	large durasif.

4. Write with both hands 'A to Z' in small letters.

Right	abada	8 8	h	1	j k	1	m	m	Ð	Þ	qi	м	4	tur
Left Hand	abede wayy abede w=0 y z	6 8	h	t.	j.t	1	m	25	.10*	Þ	a/	A	36	pan

5. Signature with Left Hand

RightSight



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	GALGOTIAS	6	
and a la serie series a series	GALGOTIAS		
	GALGOTIAS	and a la set sense and a log	

Namé*	Rutula kharat	DOB 30/07/03
Sex*	Female	Date of Admission
School/ College Name*	M.P. Low college	Nature of Hand*
Writing Skill (Languages)		Best Writing Skill
Class	BA-LLB-FY	Level (Beginner/Lemer/Expert)

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Gght Jand
ft nđ

2. Write with both hands 'The quick brown fox jumps over a lazy dog"

Right Hand	The	າ ຊິນຳຄ	sk bro	ωn	fox	Jump	s	over	۵	lazy	dog
Left Hand	The	quick	brown	fax	jumps	over	٥.	lazy o	kog?		

3. Write with both hands 'The quick onys goblin jumps over the lazy dwarf' Right 'The quick onus goblin jumps over the lazy dwarf'

Hand	10.00		and w	Jones	4.		Contraction of	The role	1
Left Hand	"The quick	onyx	goblin	jumps	over	the	lazy	devarf'	

4. Write with both hands 'A to Z' in small letters. Right a.b.c.d.e.f.g.h.i.g.k.l.m.n.o Hand P.g.w.S.t.u.v.w.x.y.z. Left Bedefghijkim Kopgr SAUVW 7.92 Hand

5. Signature with Left Hand

Right hand

-	- at		
P.F	NAC		
	1eA	hand .	

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6		14	-	25	ć
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	4	20	89	r	

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Handwriting Sample collection for-Completion of Research Thesisin Ph.D. (Forensic Science) by Mr. Siddiqul Mobd. Khaja Moimddin (Research Scholar) 2018

Name*	Sheavan Patel	DOB	10 - 04 - 2003
Sex*	Female	Date of Admission	10 01 2003
School/ College Name*	MP Low college	Nature of Hand*	Left hand
Writing Skill (Languages)	English	Best Writing Skill	
Class	BALLB I	Level (Beginner/Lemer/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1	12	13	14	15	16	17	1	8	19	20
Right Hand Left Hand	1	2	9	3 L	1 5	6	7	8	q	10	o

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right The quick beaun for jumps over a lazy day. Left The quick beaun for jumps over a lazy day.	Right Hand	The	queck	brown	fax	Jumps	CARA.	α.	lasy	day	~
trante denne den den de	Left Hand	The	quech	becaus	for	fump	8 04/22	a,	faze	L de	H

3. Write with both hands 'The quick onya goblin jumps over the lazy dwarf' Right The quick any galdin jumps over the large dwarf Hand Left The queck any gablen jumps are the large dwarf Hand

4. Write with both hands 'A to Z' in small letters.

Right Hand	abcdefghijklmnopgretuvwxyz	
Left Hand	a b c d e f g h i j k 1 m no pq rst u v w x y z	

5. Signature with Left Hand

Andre

		Handwriting Sample collect Mr. Siddie	GALGOTI tionfor-Completion of Resea ui Mohd. Khuja Moinuddin	rch Thesisin Ph.D. (Forensic Science) by
Name*		kadom koustina	DOB	22/03/2002
Sex*		male	Date of Admission	
School/ College N			Nature of Hand*	Right
Writing S Language			Best Writing Skill	
Class			Level (Declared and Transit	
			(Beginner/Lerner/Expert)	
	1.	Write 1 to 20 (I to 10 with R	ight Hand 11 to 20 With Left	(Hand)
Right Hand	1	234 5		9 10
Left Hand	1	1 12 13 14 1	s 16 17 18	19 20
			Sector As the	
Diskt	1000	Write with both hands 'The q	Contraction of the second s	and the second se
Right Hand	7	he quick bo	nowin fox -sur	nrs over a lazy day
Left Hand	Th	e quick bo	rown Fox j	lumps over a lazy do
	3.	Write with both hands "The q	uick onys goblin jumps ov	er the lazy dwarf
Right Hand		e quick only x		Ps over the lozy divort
Left Hand	The	Pulick ony	x goblin Ju	amps over the lazy dwi
	-		and the second second	1
Right		Write with both hands 'A to 2		
Hand	A I	3 CD EFGHI	JKLMNO	PORSTURWAYZ
	in the second second		states were served	Q & S& UVWXYZ

5. Signature with Left Hand

Fadama

Stadauy - 11

1		100	
- 6.3	9	13	
	20	100	P

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Hardwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forefric Science) by Mr. Siddiqui Mohd. Khaja Moinuddin (Research Scholar) 2018

Name*	Summer SindeshPoinde	DOB	06/11/2001
Sex*	Male	Date of Admission	0071170006
School/ College Name*	S	Nature of Hand*	Right and Left (both)
Writing Skill (Languages)		Best Writing Skill	
Class	B.A. LL. 8 I	Level (Beginner/Lemen/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

	12345678910	
Left Hand	11 12 (3 14 15 16 17 18 19 20	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick brown fox jumps over a lazy dog'	
Left Hand	The quick brown fox jumps over a lazy dog'	

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The	Huick	орух	20 blim	jumps	over the	azy dwarf /
Left Hand	TLE	quicke	of x Ent	6 lin jun	nrs over	the lazy	dwarfs

4. Write with both hands 'A to Z' in small letters.

Right	ABCDEFEHIJKLMNOPARSTUVWXYZ	
Hand	abcdefyniskim no parks tu vwxyz	
	a b cd efphisking nopg kstur wxyz	

5. Signature with Left Hand

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430-40	

(Languages) Class

	Handwriting Sample collec Mr. Siddir	GALCOT GALCOT tionfor-Completion of Res tui Mohd, Khala Molaudd	IAS earth Thesisin Ph.D. (Forefic Science) by in (Research Scholar) 2018
Name*	Pooia Pawar	DOB	11/02/2003
Sex*	Female	Date of Admission	Cr.
School/ College Name*	M-P. Law College.	Nature of Hand*	Right
Writing Skill		Best Writing Skill	

Level (Beginner/Lemen/Expert)

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

B.A. LLB-IL Yr.

Right Hand	1, 2, 3, 4, 5, 6, 7, 8, 9, 10.	
Left Hand	11, 12, 13, 14, 15, 16, 17, 18, 19, 20.	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick	brown fox jumps over a lazy deg'	
Left Hand	The quich	brown fox jumps over a hizy dog'	

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Hand	"The quick on yx goblin jumps over the lazy dwarf."	
Left Hand	The quick only goblin jumps over the lozy dwarf.	

1. 0. 0. (a)	4,	W	ite wi	ith be	th har	ids."	A to 2	Z' in	small let	075.
Right Hand	a	ь	c	d	e	f	9	h	11	KIMNOPArs tuvwxyz
Left Hand	a	- 6	ed		fgł	Ľ,	ik	In	no	arsturnxyz.

5. Signature with Left Hand





1	0
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Name*	Subant Dongaroolfhe	DOB 046 /00 100002	
Sex*	Female	Date of Admission	
School/ College Name*	M.P. LAW College	Nature of Hand*	"Right Hanol, lef Harol
Writing Skill (Languages)		Best Writing Skill	
Class	BAILIB 2ndypas	Level (Beginner/Lemer/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right	1,2,3,4,5,6,7,2,9,10,11,12,13,14,15,16,17,18,19,20
Hand	
Left	1,2,3,4,5,6,7,9,9,10,11,12,13,14,13,10,17,18,12,20
Hand	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The	quick	provon	For	jumps	0Ver6	α	lazy	dog'
Left	The	quick	prom	n fo	inubi Inubi	s over	a	1924	deg.

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The	quick	onyse	gabiin	Jumps	OVATS	the	1921	dwarof +
Left Hand	The	quick	onyez	Joblin	Jumps	OVER	ीमह	1924 01	awaror r walsh '

4. Write with both hands 'A to Z' in small letters.

Right	ABCDEFGHIJKLMNOPQRSTUVWXYZ ABCDEFGHIJKLMNOPQRSTUVWXYZ
Left	ABCDEFGHIJKLMNOPORSTUNWXXZ.
Hand	

5. Signature with Left Hand

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GALGORIAS 🚽
Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Foreffic Science) by

Name*	Batiksha Giram	DOB	07103/2002
Sex*	Female	Date of Admission	-
School/ College Name*	Manikchand Pahada	Nature of Hand*	thight / Left
Writing Skill (Languages)	3	Best Writing Skill	
Class	B.A.LLB2nd	Level (Boginner/Lemer/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1,2,3,4,5,6,7,8,9,10	
Left Hand	00 01 21 21 21 21 21 21 21 21 21 21 21 21	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	It The quick brown fox jumps over a	a lazy dog.
Left Hand	t The quick brown fox jumps over a log	y dog-

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The	quick	onyx	gablin	jumps	over	the	lazy	dwarf. Jwarf
Left Hand	The	quick	onyx	goblin	jumps	Oves"	the	lazy	Javarf

4. Write with both hands 'A to Z' in small letters.

Right	a, b, c, d, e, f, g, h, i, j, k, L, m, n, o, p, q, r, s, t, v, v, w
Hand	X, 9, 2.
Left	a. b. c, d, e, F. g, h, 1, 1), k, l, m, n, v, p, 4, 5, 5, t, v, v, w, K
Hand	a, b, c, d, e, f, g, h, i, j, k, L, m, n, o, p, 9, r, s, t, v, v, w x, y, z. a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, o, s, t, v, v, w, K y, z.

Canan-

5. Signature with Left Hand

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- 1	11.	1000	
- 6	25	2	
	100	62	۳.

SALGATIAS

Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forefsic Science) by Mr. Siddigui Mohd. Knajs Moinuddin (Research Scholar) 2016

Name*	Sukama Navie	DOB	021-09-2003
Sex*	Temale	Date of Admission	
School/ College Name*	MPIOW College	Nature of Hand*	Righthand
Writing Skill (Languages)	English	Best Writing Skill	English
Class	BALLE 15+	Level (Beginner/Lemer/Expert)	

1. Write 1 to 20 (I to 10 with Right Hand 11 to 20 With Left Hand)

.

Right Hand	1	2	3	Ц	5	6	٦	8	Э	10	
Left Hand	11	Q 12	13	14	15	16	17	18	19	29	

2. Write with both hands "The quick brown fox jumps over a lazy dog"

Right Hand	'The	quick	< brow	n fox	Jumps	OVCI	a	lazy	dog.'
Left Hand	The	quick	K brow brown	Fox J	iump9 (over	٩	(92)	dog'

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right	t The	quick	onyx	qoblir	Jump	sover	the 1027	dwast
Left	The qu	ick o	inyx	gobin	James	over	the lazy	dwart?"

4. Write with both hands 'A to Z' in small letters.

Right Hand Left Hand	A	a	b	С	d	e	F	9	h	13	K	1	nn	0	P	P	r	5	tu	1.00	хy	2
Left Hand		a.	b	0	d	e,	F	9	h	ťĵ	k	1)	nn	0	P	8	rs	tu	۲v	w x	- 47	Z.

5. Signature with Left Hand



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<	Hatdwriting Sample collection for-Completion of Research Thesisin Ph.D. (Forensic Scient Mr. Siddigai Moha, Khaja Moinuddin (Research Scholar) 2018									
Name*	Archana Grangurde	DOB	28/06/2003							
Sex*	Female	Date of Admission								
School/ College Name*	M.P. Low College	Nature of Hand*	Right							
Writing Skill (Languages)	English	Best Writing Skill								
Clais	BA.LLB - 157 year	Level (Boginner/Lemen/Expert)								

÷	Write 1	to 20 (1)	a 10 with	Bight Hand 1	1 to 201	With Left Hand)
	ALC: NOTE: N	10.00.00	0 FIL 11111	Tradition a manufactor of	1.10.000	to this poont is preside it

Right Hand	1.2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20
Left	1.2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20
Hand	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	"The quick brown fox jumps over a lazy dag!	
Left Hand	"The quick known fax jumps over a lazy dag"	

3. Write with both hands 'The quick ony's gablin jumps over the lazy dwarf'

Right	"The quick onlyx goblin jumps over the lazy duxof"
Hand	"The quick only goblin jumps over the lazy dwarf"
Left Hand	"The quick only goblin jumps over the lacy dwart

4. Write with both hands 'A to \mathbf{Z}^* in small letters.

Right Hand	ABCDEFGHIJKLMNOPQRSTUVHXYZ	
Left Hand	ABCDEFGHIJKLMNOP9RSTUVWXYZ	

5. Signature with Left Hand

Ant.



Name*	Sunekha Wakle	DOB	05/06/2003
Sex*	Female	Date of Admission	
School/ College Name*	Manikchand Pahade	Noture of Hand*	Right hand
Writing Skill (Languages)	English	Best Writing Skill	
Class	BA.LLB. I year	Level (Beginner/Lemer/Expert)	

		Write 1							-						
Right	12	545	767	80	10	11	12	12	16	45	46	47	40	1.0	0.05
Hand	100.000	1.10	< 1× 1	0.2	+-		10.00	4.00	1.4	20	20	ユモ	10	11	20

Left	1234567891011121314151617 18 19 20
Hand	

2. Write with both hands 'The quick brown for jump: over a lazy dog'

Right Hand	The	quick	< brow	h fox	: jump	s over a la	zy dog .	
Left Hand	The	quick	psonp	Fox	Barni	s over a la over a lazy	dog.	

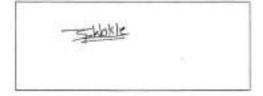
3. Write with both hands 'The quick onys gobiln jumps over the lazy dwarf'

Right Hand	The	quick	onyx go	blin jur	mps over	the	lazy	du	arf
Left Hand	The	quick	; onya	gablin	jumps	0/16.9	HR	lazy	dwarf.

4. Write with both hands 'A to Z' in small letters. Right ABCDEFGHIJKLMNOPQRSTUVWXYZ Hand Left ABCDEFGHIJKLMNOPQRSTUVWXYZ Hand

5. Signature with Left Hand





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SALGOTIAS 影	
Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forensic Science) by	
Mr. Siddiqui Mohd. Khaja Moinaddin (Research Scholar) 2018	

Name*	Sakshi Fulape	DOB 532003	
Sex*	Female	Date of Admission	
Sebool/ College Name*	H C L HI - No fe	Nature of Hand*	Right
Writing Skill (Languages)		Best Writing Skill	
Class	B.A.LLB 15ty	Level (Beginner/Lemer/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Ha	Write 1 to	p 20 (1 to 10	with Right	Hand 11 b	20 With 1	left Hand
---	------------	---------------	------------	-----------	-----------	-----------

Right Hand Left Hand	1	2	3	4 :	56	7	8	9 :	0		
Left Hand	11	12	13	14	15	16	17	18	19	20	

2. Write with both hands 'The quick brown for jumps over a lazy dog'

Right Hand	The quick brown Fox jumps over a key dog'
Left Hand	The quick brown Fox jumps over a lazy dog

	3. Write with both hunds 'The quick onya goblin Jumps over the lazy dwarf'
Right Hand	'the quick only goblin jumps over the lazy dwaref'
Left Hand	The quick only sollin jumps aver the last duars

4. Write with both hands 'A to Z' in small letters.

Right Hand	ABCDEFGHTJKLMNOPORSTUNWXNZ abcdefehijkimnopopstuvwxyz	
Left	worderenijkimnopapstuvwozyz	- 1
Hand	abade Fohiskimholopstulussyz	

- 5. Signature with Left Hand
- 6. Signature with Right Hand







GALGINIAS

Handwriting Sample collectionfor-Completion of Research Therinin Ph.D. (Forefsic Science) by Mr. Siddiqui Mohd. Khaja Moinuddin (Research Scholar) 2018

Nama*	Gayatai Dalvi	DOB	
Sex*	female.	Date of Admission	
School/ College Name*	hade law Conage	Nature of Hand*	
Writing Skill (Languages)		Best Writing Skilli	
Class	BATE To Acou	Level (Beginner/Lemer/Expert)	

1. Write I to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1	2	3	4	5	6	Ð	8	9	10.
Left Hand	11	12	13	14	15	16	17	18	19	10. 20.

2. Write with both hands "The quick brown fox jumps over a lazy dog"

Right Hand	The	quict	broa	n fi	nr jur	ips i	over	91	azy doo
Left Hand	The	quick	brown	for	jumps	ove	rall	azy	dog.

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The	quick	onyx	goblir	n jum	ips c	Nea	the	lazy	deaunt
Left Hand	the	Anick	onyx	goblin goblin	jumps	ove	rth	eia	zyd	warr

4. Write with both hands "A to Z' in small letters.

Right Hand	ab cdefghijkl mnopag stuvex y 2
Left Hand	abedefghijkImnoP48stuvwxy2.

5. Signature with Left Hand

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Goyatei

Name*

	65	
	GALGOT	145
Handwriting Sample co	GALGOT UNIVERS	175 Strength Thesisin Ph.D. (Forefisic Science) by
	Idiqui Mohd. Khaja Moinudd	
Diya Kolte	DOB	17/3/2004
Female	Date of Admission	10 ¹

Sex*	Female	Date of Admission	
School/ College Name*	Manflechand Fahade Law cellege .	Nature of Hand*	Right Hand
Writing Skill (Languages)	English.	Best Writing Skill	
Class	BALLB. 1st yr.	Level (Beginner/Lerner/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1	2	3	4	5	6	7	8	9	10 -
Left Hand	11	R.	13	14	(5	16	12	12	19	20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick brown fox jumps over a lazy dag.	
Left Hand	The quilt becam fox jumps over a larry day.	

3. Write with both hands 'The quick onys goblin jumps over the lazy dwarf'

		quick	onyx	goblin	jumps	OVET	the	lazy	duaan F.	
Left	1					1.		1		

Hand The quick only gablin jumps over the logy dwarf

				with by																			
Right Hand	a	b	c	d	e 1	Fg	h	1	1	k	L	m	n	0	p	qr	2	ŧ	u v	γw	x	93	t, -
Right Hand Left Hand	a	6	C	de	F	9	h i	1	k	1	iP)	n	0	p	9	9 S	t	u	v	60	ĸ	y -	24

5. Signature with Left Hand 6. S



[kal	5.		



Name*	Gamzeen batema	DOB	
Sex*	Lemate.	Date of Admission	
School/ College Name*	Yashwant college.	Nature of Hand*	left & sight both.
Writing Skill (Languages)	English.	Best Writing Skill	abr o with board
Class	0	Level (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1	2	3	4	5	6	4	8	9	
Left										
Hand	n	12	13	14	15	16	17	18	19	20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Hand	The quick	beown 600	x jumps avec a lezy dog Jumps avez a lezy deg.
Left			o
Hand	The quick	blown los	Sumos anes a lazy alea

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right The quick only z goblin jumps aver the logg dwarf Hand Left Hand myx goblin fumps over the lazy dwarf The quick

4. Write with both hands 'A to Z' in small letters.

Right Hand	abides thijk Amnopanotuo ways.
Left	Caeognijarimopanstuo wayz.
Hand	abcdebghljklmzopqustuowzyz.

5. Signature with Left Hand

Fair	France



Name*	Hasn khan	DOB	
Sex*	'rale.	Date of Admission	
School/ College Name*	20 C	Nature of Hand*	leht & sight.
Writing Skill (Languages)	osolu, english	Best Writing Skill	and again
Class	12#	Level (Beginner/Lemer/ Expert)	

1. Write I to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1234567	8	9 10
Left	1 45 B 26 45		C.M. 324
Hand	112 13 14 15 16 17	IT	19 2/

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right The quick becown toole jumps over a lazy dog. Hand Left Hand The quick brown box Jumps over a lazy dug

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right The quick only goblin jumps over the lagy dwast. Hand Left Hand The quick only goblin jumps over the bazy durash

4. Write with both hands 'A to Z' in small letters.

Right abcdetghijklmnopq & sturwayz Hand Left bgh ejklm no pq2 bt www. Hand

5. Signature with Left Hand

Hasnk

Alash

4.2.2 Sample data of ambidextrous persons (Left Hand)



Handwriting Sample collection for-Completion of Research Thesis in Ph.D. (Forensic Science) by Mr. Siddioui Mohd Khaia Moinuddin (Research Scholar) 201

Name	MAYOR PAWAR	DOB	02-10-1994
Sex	male	Date of Admission	
School Name	NEGS 605P	Nature of Hand	Left
Writing Skill (Languages)		Best Writing Skill	
Class		Level (Beginner/Lerner/Expert)	

1. Write I to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

1, 2, 3, 4, 5, 6, 7, 8, 9, 10,

2. Write with both hands "The quick brown fox jumps over a lazy dog"

The quick brown for sumps over a lazy dog ' The quick brown for sumps over a lazy dog'

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

The quick only goblin jumps over the laxy dwarf The quick only soblin Jumps over the (my Javar

4. Write with both hands 'A to Z' in small letters.

ABODEFGHIJLMOPQRSTUVWXYZ. ABOD &FGHIJLMOPQRSTUVWXYZ

6. Signature with Right Hand





Name*	shendge Peatiksho J.	DOB	12-05-2000
Sex*	Jemale.	Date of Admission	
School/ College Name*	8. A university A'bad	Nature of Hand*	Lett
Writing Skill (Languages)		Best Writing Skill	
Class	MOC & year chemister	Level (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand		
Left Hand	1,2,3,4.5,6,4,8,	01, E 02, P1, 21, P1

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand									
Left Hand	(The	quick	beown	for	jumps	over	a	1014	dog '

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand									
Left Hand	The	quick	onyx	goblin	Jumps	over	the	lazy	dwaez-

4. Write with both hands 'A to Z' in small letters.

Right Hand		ĺ
Left Hand	A. BIC. DIE. F. G. H. I. J. K. L. M. N. O. P. B. RIS. T. U. V. W. X. Y. Z.	

5. Signature with Left Hand

Tattin

1.1	19	and a second
- 6	94.9	50
- 3	-	100
28.4	100	Sector A

Name*	Samnak Athawald	DOB 30/06/2004	
Sex*	male	Date of Admission	
School/ College Name*	M.P. LOW	Nature of Hand*	Left Hand.
Writing Skill (Languages)		Best Writing Skill	
Class	BALLB I	Level (Beginner/Lemer/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1.2,3,4,5,6,7,8,9,10
Left Hand	1.2,3,4,5,6,7,8,9,10

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	the	quick	payon	Fox	jumps	over	٥	1024	dog
Left Hand	the	<i>quick</i>	paginu	fo×	jumps	over	q	lazy	dog'

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	the quick only goblin tumps over the lozy dwarf
Left Hand	The quick only glob goblin jumps over the lazy dwarf

	4. Write with both hunds "A to Z' in small letters.
Right Hand	a.b.c.o.e.f.g.h.l.J.K.L.M.N.O.P.A.X.S.t.W.400,407.2
	a.b.c.d.e.f.g.h.i.j.K.L.m.n.o.p.g.r.s.t.u.N.W.X.M.Z.

5. Signature with Left Hand

6. Signature with Right Hand

Carryok

Sompt.

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	Mr. Siddig	GALGOTI/ DALVERSIA tionfor-Completion of Research ul Mobd. Khaja Moinuiddin (rch Thesisin Ph.D. (Foresisic Science) by
Namø* Sex*	Shalkh Sail-oddin	DOB	6-7-2003
	Male	Date of Admission	
School/ College Name*	M.P LOW	Nature of Hand*	Left hand
Writing Skill (Languages)		Best Writing Skill	
Class	BA.LIB-I	Level (Beginner/Lemer/Expert)	
Left Hand 2	1 12 13 14 15	26 17 18 19	b
Right THand THANG	Write with both hands The o ite ayurck brown	puich brown fox jumps over N FOX JUMTRS ON	ralazy dug' 165 O lazy dog
Right Hand Left Hand There	Write with both hands "The o ise a guick brown ie g <i>uick</i> brown	puich brown fox jumps over r: FOX jan1785 av r: Lox jan1799 o	ralazydog' Yes O lazy dog Ver a Lazy dog
Right Hand Left Hand 3.	Write with both hands "The o ise a guick brown ie guick brown Write with both hands "The o	puich brown fox jumps over Y FOX JUMTRS OV FOX JUMTRS O puich onyx goblin jumps over	ralazydog' Yes O lazy dog Ver a Lazy dog
Right 77 Hand 77 Hand 77 Hand 3. Right 7	Write with both hands "The o is a guick brown is guick brown Write with both hands "The he a with oth hands "The	puich brown fox jumps over r FOX JUMTRS OI FOX JUMTRS O puich only gublin jumps on X GO DIM JUMMF	r a lazy dog' 168 O (azy dog 168 A LAZY dog er the lazy dwart'
Hand 2. Right Hand Left Hand 77 Hand 77 Hand 70 Left 1, Hand 7	Write with both hands "The o is a guick brown is guick brown Write with both hands "The he a with oth hands "The	puich brown fox jumps over r fox jumps ou fox jumpg o puich onyx goblin jumps ou x Go blim jump Go blim jump	r a lazy dog Ver a lazy dog Ver a lazy dog er the lazy dwart Of a vers the lasy dwarf Of a vers the lasy dwarf
Hand 2. Right Hand Left Hand J. Right Hand Left Hand 7 Hond 4.	Write with both hands "The office of the brown in a with both hands "The office of the brown Write with both hands "The office of the office the office office office the office office write with both hands "A to	puich brown fox jumps over r fox jumps over fox jumps over puich only goblin jumps over % Goblin jump goblin jump Z' in small letters.	r a lazy dog Ver a lazy dog Ver a lazy dog er the lazy dwart Of a vers the left dwarf

- 5. Signature with Left Hand
- 6. Signature with Right Hand

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Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forensic Science) by Mr. Siddiqui Mohd. Khaja Moinuddin (Research Scholar) 2018

	PHIL OPDING	ai mona, iknojii moantaani (Properties Secondly 2018
Name*	Rushikah M. singal	DOB 9010110003	3010112003
Sex*	male.	Date of Admission	
School/ College Name*	M.P. Law. college .	Nature of Hand*	left hand.
Writing Skill (Languages)	English .	Best Writing Skill	rgarathi.
Class	BALLB II nd	Level (Beginner/Lemer/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1234567891011121314151617181920
Left Hand	1234567891011121314151617181920

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick brown for Jumps over a locy drug'
	the quick brown for jumps over a lazy dog

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

Right Hand	The quick brugs globlin joines over the lacy wher?
Left Hand	The quick only gob lin jumps over the lacy droarf

4. Write with both hands 'A to Z' is small letters.

Right Hand	ABCDEPEHIJKLMNOPERSTUVWX42
T	ABCDEFGHIJKLMNOPARSTUUWXYZ

5. Signature with Left Hand

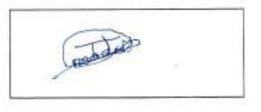
6. Signature with Right Hand

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Name*	Mr. Sublide		ch Thesisin Ph.D. (Foresic Science) by
10000	I mad Mizam Pathan	al Mohd. Khaja Moinuddin () DOB	Research Scholar) 2018
iex*	Male	Date of Admission	
ichool/ Jollege Nar	ne*	Nature of Hand*	Left-handed
Vriting Skil Languages)		Best Writing Skill	
Class		Level (Beginner/Lemer/Expert)	
	1. Write I to 20 (1 to 10 with Rig	ght Hand 11 to 20 With Left	Hand)
Right Hand	12345	878	9 10
Left Hand	11 12 13 14 15	16 17 18 19	20
	2. Write with both hands 'The g	uick brown fox jumps over	a lazy dogʻ
Right - Hand	The quick boown b	the jumps oner	a Jarry dag
Left Hand	the quick brown	fox jumps ove	r a lazy dog
900 (USI-51 P	3. Write with both hands 'The qu	uick onyx goblin jumps ove	er the lazy dwarf"
Right - Hand	The quick snyn g	polition timps our	a the havy dweat.
Left Hand	the quick only go	oblin d'umps ou	en the lay dwary.
	4. Write with both hands 'A to Z	t' in small letters.	
112-12-12			
Right of Hand	abede by h	1 I Zk Jmo	oph est unways

5. Signature with Left Hand

Contat	1
artist	





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Hundwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forefisic Science) by Mr. Siddiqui Mohd. Khaji: Moinuddin (Research Scholar) 2018

Name*	Mahale Chinmay	DOB	10 May 2002
Sex*	Male	Date of Admission	
School/ College Name*	Manikchand Pahade Cilleae	Nature of Hand*	Left
Writing Skill (Languages)	English	Best Writing Skill	
Class	BALLB-I	Level (Beginner/Lemer/Expert)	

1. Write 1 to 20 (I to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	12345679910
Left Hand	11 12 13 14 15 16 17 18 19 20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick brown fox jumps over a lazy dog.
Left Hand	The quick brown fox jumps over a lazy dog.

	3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'
Right Hand	The quick anyx goblin jumps over the lazy dwarf.
Left Hand	The quick only goblin jumps over the lazy dwarf.

4. Write with both hands 'A to Z' in small letters.

Right Hand	abcdefghijklmnoparstuvwxyz-
1. 10	obedefghijkdmnopgestuvwxyz.

5. Signature with Left Hand



Name*	Momin Abu Ammar	DOB	16-1-1993
Sex*	mole	Date of Admission	-
School/ College Name*	B.P.Ed.	Nature of Hand*	Left
Writing Skill (Languages)	left English	Best Writing Skill	Engligh
Class	The Jan	Level (Beginner/Lerner/ Expert)	,

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	12345678910
Left Hand	12 13 14 15 16 17 18 19 20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The	quicle	brown fox Jumps over a lazy dog.
Left Hand	ſλε	<i>qutak</i>	barown box Jumps over a lazy dog

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The quick ONYX goblin Jumps over the lazy duary
Left	The quice Only 2061in Jumps over the lazy duary
Hand	The quice Dry + 2067 Jumps Dreathe has budy

4. Write with both hands 'A to Z' in small letters.

Right Hand	AB COBFGHETICLMNOPQTSTUV2
Left	ABCOBFGHIJKLMNOPQESTUVZ
Hand	EbcfebghijkLMNDIQTSTUVZ

5. Signature with Left Hand





Handwriting Sample collection for Completion of Research Thesis in

Ph.D. (Forensic Science) by Mr. Siddiqui Mohd Khaja Moinuddin (Research Scholar) 2018

Name	Huena Taqueem tas	DOB	0.0 10 100/
Sex	lemale_	Date of Admission	20- 12-1996
School Name	0	Nature of Hand	1.10
Writing Skill (Languages)		Best Writing Skill	Left.
Class		Level (Beginner/Lerner/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

1	2	3	4	5	6	7	20	11	O-CRH)	
11	12	13	14	15	16	17	18	19	20- (LH)	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

The quick brown for jumps over a lary dog - (RH) The quick brown fox jumps over a logy dog-CLH)

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

The quick Dryx goblin jumps over the lazy dware - (RH) The quick only goblin Jumps over the logy dwarf-(1H)

4. Write with both hands 'A to Z' in small letters.

abcdefghijklmnopgesturwægg. - (RH) abcdefghijklmnopqsstuvwxyz-(LH)

5. Signature with Left Hand

fun



Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forensic Science) by Mr. 18

Siddiqui Mohd.	Khaja Moinuddin	(Research	Scholar)	20

Name*	Gopal Rovindra Sitaram	DOB	21/07/1996
Sex*	Male	Date of Admission	
School/ College Name*	M.S.M. college pasarghed	Nature of Hand*	Left Hand
Writing Skill (Languages)	v v	Best Writing Skill	
Class		Level (Beginner/Lerner/ Expert)	

1. Write I to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	13.3,9,55,7,8,9,10
Left Hand	12,3,9,55,7,9,9,10

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quict brown for Jumps Over a Leage day	
Left Hand	The guick brown for jumps over - largy dog.	

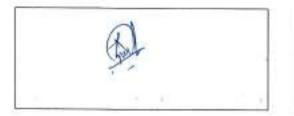
3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	the quinty only golden ways over the key dwart	
Left Hand	The quick only goblim jumps over the lazy doort	

4. Write with both hands 'A to Z' in small letters.

Right Hand	A BCDEFALTELMNOPARSTUNWX PZ
Left	ABCDEFGLIKLMNOPARSTUVWX PZ
Hand	ABCDEFGHJJKLMNOPQRSTUVWXYZ

5. Signature with Left Hand





Name*	Rowan Prokosh Meghawale	DOB	10-03-2000
Sex*	Maic	Date of Admission	
School/ College Name*	M.S.M Collage	Nature of Hand*	LeP+
Writing Skill (Languages)	क्षराज्ञ :	Best Writing Skill	भराजी
Class	B.P.Ed 1st Jean I sem	Level (Beginner/Lemer/ Expert)	-

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

	12345678910
Left Hand	11231415167480

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

	The quick brown Por Jumiss over a logy dag
Left Hand	THE quick books has JUMPE DIES a last dog

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The quick offer Jublin Jumis over the days dward.
Left Hand	the fuide only a gongin Jubie over the last clubal

4. Write with both hands 'A to Z' in small letters.

Right Hand	PBODER anis KEMNOPARS +UU Wayz	
Left Hand	HBODER CHIZRIUNDIDEDE FILMANS	

6. Signature with Right Hand Elik



Name*	Sachin K. Lavera	DOB	14 (0) 97
Sex*	May	Date of Admission	
School/ College Name*	M-S. M COllgec	Nature of Hand*	12.02
Writing Skill (Languages)	18138	Best Writing Skill	HEIGH
Class	B.P.Edate	Level (Beginner/Lerner/ Expert)	_

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	12345678910	
Left Hand	1112 13 14 15 1517 181920	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The	QUICK	brown	Fox	JUMPS	over a lace day.
Left Hand	The	quick	pyown	for	JUMY	es overana haza da

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The	quiup	ONYX	godin	JUMPS	OMEX	the law	Jave P
Left Hand	The	aning	' my	8 906	in lon	ps dag	s the last	daws yo

4. Write with both hands 'A to Z' in small letters.

Right Hand	abodefan IJK IM N OF9YSTUU WARZ
Left	abodefan IJK IM NOPPYSTUUWX77
Hand	Chocdefan ISAMINOP CArstuuwx77

5. Signature with Left Hand

Ihib



Name*	SACHIN PATHARE	DOB	10-02-1982
Sex*	Male	Date of Admission	LeFT Hand
School/ College Name*	M.S.M College B.P.ED	Nature of Hand*	
Writing Skill (Languages)	English	Best Writing Skill	
Class	15+ YEAR BOPOED	Level (Beginner/Lerner/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	12345679910111213141516181920
Left Hand	123456789 10 11 12 13 14 15 16 17 18 19 20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick brown Fox Jumps over a lazy dog'
Left Hand	The quick brown Fax Jumps over a lazy dog?

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The quick onthe goblin Jomps over the lazy dworf
Left Hand	The quick only goblin Jumps over the lazy dwarf

4. Write with both hands 'A to Z' in small letters.

Right Hand	A OCDEFG HIJK COMNOPORSTWUXYZ	
Left Hand	ABCDEFGHIJKLMNOPARSTWVXYZ	

5. Signature with Left Hand

Ballenf

auto



Name*	ANSKET RAJESH DESHMUH	DOB	26-09-2000
Sex*	M	Date of Admission	JAN-21
School/ College Name*	Misht College OF P.E	Nature of Hand*	LEFT-
Writing Skill (Languages)	ENGLISH, MARATHI	Best Writing Skill	ENGLISH
Class	F.J. Brad.	Level (Beginner/Lemer/ Expert)	Baginner

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1, 2, 3, 4, 5, 5, 7, 8, 9, 70, 11, 12, 13, 14, 17, 10, 19, 20
Left Hand	1, 2, 3, 4, 5, 5, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The Rubber Brown tor immer price a large dog
Left Hand	The quick brown Fox Jumps Over a lazy dag.

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The quick once goblic vivings anow the last dougst -
Left Hand	The quick only goblin jumps over the lozy downf.

4. Write with both hands 'A to Z' in small letters.

Right Hand	O.b. C. d. e.F. 9. Histocorton, 0, D. D. r. b. t. U. r. W. R. Z
Left Hand	A, B, C, D, E, F, G, H, I, J, K, LM N, OIP, JR S, T, U, V, W, X, Y, Z.

5. Signature with Left Hand

4.2.3 Sample data of non-ambidextrous persons

Sex*		Devesini Deves	DOB	6006-20-80
oun	-	Female	Date of Admission	
School/ College N	lamat	m.P. LOW College	Nature of Hand*	Right Hand fleft Har
Writing S		0	Best Writing Skill	all from some cost of state
(Languag				
Class		8.A.U.B VIND Y. 450	Beginner/Lemer/Exper	0
			1.0-0	
	1.	Write 1 to 20 (1 to 10 with R	Sight Hand 11 to 20 With I	.eft Hard)
Right Hand	7	2345	678	9 10
Left Hand	tt	12 13 14 15	15 17 18 1	19 20
	-			
Dista		Write with both hands 'The	and the second se	and the second se
Right Hand	The	e quick brown re quick brown	tox jumps a	mer a lash and.
Left	TV	10 ONICK DIVOWA	r fox jumps o	over a lazy dog
Hand		in the n	3 N	6 H
	-	and a state of the	12 12 12 12 12	
Dialat	3,	Write with both hands "The	quick onyx gobiin jumps	wint the inter dulat
Right Hand	Th	is drick outs	doorus Jaruha	over the lazy dwarf,
Left	m	& quick ONLA	abbin jumps	over the lazy dwart
Hand	11	in the state	0 1	1. 59. S1990AU
	4	Write with both hands 'A to	Z' in small letters.	NT 111 111 111
m: L	A	8 CO FF GH 171	US IN NOLAN	10100 WX 12
Right	111		1 10 1 + c+ 10 /2 1	NOT HILL IV W
Right Hand Left	A	BCDEFGHIVE	er him wardi	KSI OV WE ZE



Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forensic Science) by Mr. Siddiaui Mohd, Khaja Mojnuddin (Research Scholar) 2018

Name*	Raju B. Sheemale	DOB	10-3-4099
Sex*	M	Date of Admission	2019-2020
School/ College Name*	M. S.M LOILERE	Nature of Hand*	Rish4.
Writing Skill (Languages)	Adehadi	Best Writing Skill	Ensaish
Class	BPEd 2reas	Level (Beginner/Lemer/ Expert)	Besinner

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1, 2.3, 4.5, 27, 8, 1, 10, 11, 12, 13, 14, 15, 16, 17, 18, 9
Left Hand	1,2,3,4,5,6,7,8 J 10,11,12,13,14,15,16,17,18,19 1,23,4,5,6,7,8 J 10,11,12,13,19,14,15,16,17,18,19 1,23,4,5,6,7,8 J 10,11,12,13,19,14,15,16,17,18,19,20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick beaun for Jumps over a lar dog
Left Hand	The paick boil is sumps were nex dog

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The	<i>а</i> щ'ск	onrx gobiin) Jumps	ovee	the	1927 dweg
Right Hand Left Hand	The	adid	anxy Jobi	n virme	Stor Star	e they	inzy hyb

4. Write with both hands 'A to Z' in small letters.

ABCOEFGALTRIMPOP & RSYUN Right Hand Left Hand

6. Signature with Right Hand





	Wit, Stoolight Wiende, Khaja Wohintouth	a first state of the second state of the secon	
Name*	Sandeep Naardvan Shongade	DOB	12-03-96
Sex*	Μ.	Date of Admission	2019-20
School/ College Name*	M.S.M physical Education College Auronopabod	Nature of Hand*	
Writing Skill (Languages)	Marath i	Best Writing Skill	masath:
Class	B.P.E.J	Level (Beginner/Lerner/ Expert)	Beginner

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right	12345678910111213141516(7181920
Hand	
Hand	123436789101112131415/617181920

2. Write with both hands "The quick brown fox jumps over a lazy dog"

Right Hand	The	quick	brown	Fox	Jann P a	e laey	dog
Left Hand	the	actick	berown	· fy	x Fun	p er	lazz dog

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The quick onyx goblin jumps over the lazy downf
Left Hand	Friquier anyx golding Josup are the Tal

4. Write with both hands 'A to Z' in small letters.

Right Hand	WATH ABCDEFGHIJKLMNOPQRSTOVWYYZ
Left Hand	PBCDE EDEGHIJKLMNODARSTOVWYYZ

5. Signature with Left Hand



Soul



Name*	Grosomm. J. Solomke	DOB	25-05-1996
Sex*	Mode	Date of Admission	
School/ College Name*	M.S. M. College BUEONSpito	Nature of Hand*	Right
Writing Skill (Languages)		Best Writing Skill	
Class	B. Ped Dyear	Level (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1	1	2	3	ч	5	6	Ŧ	Br	4	10	П	12	13	11	415)	6 1	7	18	14	20
Left Hand	t	0		2	V	3	T	X	8	1	0 (1	12	B	1	M	U-	0	17	7 12	18	20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	-me	quick	brown	fox	Jumps	DUES a	lozy dog?	
Left Hand	722	, guict	Lanh	feit	Dimis .	-10.40	420 600	

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The quick on you gobilin sumps over the lazy deducer
Left Hand	The putton is golding TIMB CARN THE KASS globad

4. Write with both hands 'A to Z' in small letters.

Right Hand	a	b	٤	đ	Ł	1	A	h	1	3	K	l	177	n	0	P	9	8	5	£	4	VWXYZ
Left Hand	ol,	6	4	J	P	Ý	9	h	į.	ġ1	5.	4	9/2	28	14	p	7	¥4		<	4	VWXYZ VUZYZ

6. Signature with Right Hand

Flate



Name*	Arun Anna Zadge	DOB	17-12-1989
Sex*	Male	Date of Admission	
School/ College Name*	Misi Mi College	Nature of Hand*	Pignor Lefo
Writing Skill (Languages)		Best Writing Skill	0.82
Class	B. P. ed III +2 Sem	Level (Beginner/Lerner/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right	1,2,3,4,5,6,7,8,9,10
Hand	1,2,3,4,5,6,7,8,9,10
Left	12345678920
Hand	7-315-4210

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The qu	<i>ijek</i>	provon	fort	jumps	ever	a	1024	day
Left Hand	The .	qui cit	· 6704	N FO	R VUME	e over	9	lazy	104

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The duick only to polin Juns over they down t
Left Hand	The quice ongot goblin Jung over the Iney duary

4. Write with both hands 'A to Z' in small letters.

Right	abic Derfigihi isk, Limihioparsta, vwx, y2
Hand	111 BCOL i i BL M H AN H Styl
Left	Wordershive. h.m. NO.0.4. S.t.V.V.
Hand	DAM Z

5. Signature with Left Hand



Name*	Karishma Javanan mote	DOB	
Sex*	femel	Date of Admission	
School/ College Name*	M.S.M college of Phic colu-	Nature of Hand*	welle Hund
Writing Skill (Languages)	Seitemere Epylish.	Best Writing Skill	
Class	Bped	Level (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1,2,3,4,5,6,7,8,9,10.
Left	11-12-13, 14-15-16, 17, 18-15-20
Hand	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The	quick	brown	for jumps over a large day
Left Hand	The	quick	bycum	As jumps aver a log-dog.

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The quick only Boblin jumps over the lary dwarf",
Left Hand	The quick onthe Justin Jumps over the boy is dward

4. Write with both hands 'A to Z' in small letters.

Right Hand	A B. CD EFGHIJKLMN OPORSTUVWXYZ abcdefahijkim nopqESTUVWXYZ A BCDEFGHIJKIMN oporstuvWXYZ abczefahijkimn opqestuvWXYZ
Left	A BC DE FEHIJKLMNOPARSTUY WXYZ
Hand	about the hit in no pass to vory 2

6. Signature with Right Hand

equie

kimpte



Name*	unesh virsi court	DOB	25-09-1389
Sex*	praie	Date of Admission	25-01-2002
School/ College Name*	MI.S.M's contrate of PHISIGH.	Nature of Hand*	Result hund.
Writing Skill (Languages)	marazhi English	Best Writing Skill	English muradhi
Class	B.P.Col. F.M. (Son I)	Level (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	12345678910
Left Hand	7112 13 14 15. 16 12 18 19 120

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The querce brown for sumps over 9 lazy dag
Left Hand	the quick from for summer over a lease day

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	the queen only gobin sums over the lazy du	ant
Left Hand	The quick only soldin Junes DUCK the Japp,	dury
THEFT		

4. Write with both hands 'A to Z' in small letters. Right トBCDEFJNJンドレMNOPSドムTUNUXYZ Hand Left ABLDEFS NJJKIMNO NYRDTUN Hand

6. Signature with Right Hand



Name*	Pady, Avinash Fareni	DOB	05 06 1991
Sex*	Male	Date of Admission	25/01/2002
School/ College Name*	M.S.M.S. College of physical un	Nature of Hand*	Right Hand
Writing Skill (Languages)	Manathi , English	Best Writing Skill	Enghish & Marailli
Class	Bped Iyears.	Level (Beginner/Lemer/ Expert)	

1. Write I to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	Adapt hand 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.
Left Hand	1, 2, 3, 4, 5, 6, 7, 8, 9,10 11,12, 13, 11, 15, 14, 27, 18:1920

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	" The quick booton for jumps over a lazy dog!
Left Hand	The quick borrow now steaps over a logy dog,

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	"The quick only goblin jumps over the loss duarses
Left	0 0 0 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
Hand	

4. Write with both hands 'A to Z' in small letters.

Right Hand	ABCORE F& H. TJK. L.M. HO.P. Q.R.S. TUV, W.XYZ
Left	ABCODEFGHIDHLM, HOPARS, TUV, WX YZ
Hand	ABCDEFGHIDHLM, HOPARS, TUV, WX YZ

6. Signature with Right Hand



Name*	Akshing kullhe	DOB	(1-9-96
Sex*	Male	Date of Admission	20-21
School/ College Name*	M.S.M. college	Nature of Hand*	Right
Writing Skill (Languages)	Marethi	Best Writing Skill	0
Class		Level (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	12345678910
Left Hand	1112 13 14 15 1617 18 19 20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	the	Acri de	brown	For	jumps	over	a	lazy	409.	
Left Hand	the_	માપાય	630-101	for	jumps Jumps	over	~	lurg	əə-g	

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	the	qui Us	onyx	gollin	Jumps	OVEN	the	lazy	dwar f
Left Hand	thys	9 Hick	o ngy	5061;	n viving	C PH	z- 19.	<u>e laz</u> s	Swart

4. Write with both hands 'A to Z' in small letters.

Right Hand	abedefghiskelmnoparsturwnyz
Left Hand	Notationin on 9257000+22

6. Signature with Right Hand

Ken

Ak ..



Handwriting Sample collection for-Completion of Research Thesisin Ph.D. (Forensic Science) by

Mr. Siddiqui Mohd. Khaja Moinuddin (Research Scholar) 2018

Name*	SHOBHAM NADIORAO DESHMOKH	DOB	13/10/1996
Sex*	MALE	Date of Admission	JAN 21
School/ College Name*	M.S.M. COLLEGIE OF. PHYSICAL EDUCATION	Nature of Hand*	RIGHT
Writing Skill (Languages)	Enulash	Best Writing Skill	ENHLISH
Class	BIPED . F.Y.	Level (Beginner/Lerner/ Expert)	BEUTINNER

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1,2,3,4,5,6,7,8,9,10	
Left Hand	11,12,19,14,15, 16,17,18,19,20	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Hand									
Left Hand	The qui	K brown	Fox	JUMPS	over	a	الاجما	dag.	

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The quick only goblin sumps over the 1924 drugt	f'
Left Hand	The quick only goblin sumps over the lazy dwarf	,

4. Write with both hands 'A to Z' in small letters.

Right	A,B,C,O,e,f,O,h,i,j,K,L,M,M,O,P,e,r,s,t,U,V,W,X,Y,Z a,b,C,d,e,f,g,h,i,J,K,1,M,M,O,P,a,7,s,tU,V,W,X,Y,Z
Hand	
Left	
Hand	apridershillerim, no Parstuvux YZ

5. Signature with Left Hand

hubbarr

publicant



Name*	Rachal Ashok Saenade	DOB	11-2- 1997
Sex*	mel	Date of Admission	JAN 2021
School/ College Name*	MSM COLLEAR	Nature of Hand*	Right
Writing Skill (Languages)	marathi	Best Writing Skill	massethi
Class	B. P. ed	Level (Beginner/Lemer/ Expert)	Export

1. Write I to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right	12345678910
Hand	113010310
Left	1 12 13/4 13/6/8/8/13/2
Hand	a 1-11-10/2 10/20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The	quick	houch	for	Jumps a toldy dog-
Left	1	CARDON STOCKED	Digeon	Jox	Junits - 100-3 903-
Hand	The	quik	brouch	for	Jumps a roley dog

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The	& quick	onya	30 him	Jupp	OVer the	102 y dwaff
Left	The	a city		0.01.0		or of the	locy dwoff
nanu	ne	MUMCK	OUT	Robin	Jumps	over the	1002gaugh

4. Write with both hands 'A to Z' in small letters.

Right Hand	PBCJEF UNIJKL MNOPERSTUUR WXCY2
Left Hand	ubcd ef Bhilk L Mnobe Aster wxyz

6. Signature with Right Hand

Reven

Beache



Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forensic Science) hy Mr. 3

Stouigui Mono, schaja Monodum (Research Scholar) 20	qui Mohd. Khaja Moinuddin (Research Scholar) 20	siddiqui Mohd. l	Sidd
---	---	------------------	------

Name*	JITENORA. R. CHOUDHARY	DOB	09 12 1995
Sex*	MALE	Date of Admission	JAN 2021
School/ College Name*	M.S.M.COLLEGIE OF P.E.	Nature of Hand*	RIGHT
Writing Skill (Languages)	ENGLISH, HINDI	Best Writing Skill	ENGLISH
Class	BPEd F.Y	Level (Beginner/Lerner/ Expert)	BEGITHNER

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	12	34	5	6	1	8	9	10	
Left Hand	11 12	2 13.	14	15	16	17	18	19 2	Ò

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right re quick brown for jumps over a lagy dog? Hand Left for Hand umps ourse a losy rea CR LONOWIN the 3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf' Right "The quick only a goblin jumps over the logy chuard Hand Left The quisk only goblin jumps over the lazy duisd Hand 4. Write with both hands 'A to Z' in small letters. BCDEFGHJJKLMNOPQRSTUNWXYZ bedato hujkdmnopovoduvoryz Right A Hand Left nd A B C D E F G H J J K L MNOPQRSTUVWX Dbcdabohijk in nop vn Stuvw 243. Signature with Left Hand 6. Signature with Right Hand Hand 5. Jendra



Name*	Namesh pimple	DOB	5-04-1999
Sex*	male	Date of Admission	
School/ College Name*	M.S.M callage	Nature of Hand*	Right
Writing Skill (Languages)	monathi	Best Writing Skill	Normal
Class	B.RA.d 1st gene	Level (Beginner/Lemer/ Expert)	expert

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1	,2	3	45	6	7	8 3	10			
Right Hand Left Hand	11	12	13	14	15	16	17	18	19	20	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick brown fox jumps over a lazy dog "
Left Hand	The quick prown fox jumps over a lagg dog'
. Write	with both hands 'The quick onyx goblin jumps over the lazy dwarf'
Right Hand	The quick only goblin jumps over the kizy dough
Left Hand	The gulick only goblin sumps over the bogy chould

*6 YZHand Left bedefghiskImnoporRSJUVWX Hand 2

5. Signature with Left Hand

	12AMAY	N.	
		5	the
1.1			1.14



Name*	Prinjanka Vijaya lingayat	DOB	25 11 1997
Sex*	Female	Date of Admission	Jan 2022
School/ College Name*	MSM college	Nature of Hand*	right
Writing Skill (Languages)	English	Best Writing Skill	cuesive
Class	Bped I sem	Level (Beginner/Lerner/ Expert)	typeet

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1234	5	6	7 8	P 1	۹)	٥	17	12	1	\$ 14	15	16 17	18	1920
Left Hand	1234	5(37	30	11	011	K	13	14	M.	16	17 18	19.20		

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	She	quick	brawn	Jore jumps	over a	lagy	deg ·
Left Hand	The	quick	logist	fore jampo	0492 C	logy	-geb

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

Right Hand	The quick only gablin firms aver the lagy cluded
Left Hand	The quick only gobler jumps over the lagy duoted

4. Write with both hands 'A to Z' in small letters.

Right Hand	ABCDEFGHIJKLMNOPARSTUV WXYZ.
Left	MOODEFGHIJKLMNOPARSTUUWYYZ.
Hand	MBODEFGHIKLMNOPARSTUUWYYZ

6. Signature with Right Hand

QVingayate

Dulingaugat



Name*	Khule Graces Ashok	DOB	03-05-1997
Sex*	mal	Date of Admission	
School/ College Name*	M-S-M	Nature of Hand*	Raite-
Writing Skill (Languages)	English	Best Writing Skill	
Class	Billar TYEX	Level (Beginner/Lerner/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1234567831011121314151617181920
Left Hand	12295678310 11 121314 1516 17 1842

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick 6 rown for Jump buera lazydog
Left Hand	The quick brown Fox sumpsource large

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right The quick only & goblindumps over the baggydum Hand Left Hand

4. Write with both hands 'A to Z' in small letters.

Right Hand	ABCOEFGHISKLMNOPORSTUUWXYZ
Left Hand	ABCOEFGHIJKLMNOPORSTUUWXYZ

6. Signature with Right Hand

hum



Name*	Mblesh M. Kanste	DOB	24/03/1934
Sex*	Male	Date of Admission	
School/ College Name*	MSM allose of Ausical Jahn	Nature of Hand*	Right
Writing Skill (Languages)	English Marsodhi Mindi	Best Writing Skill	
Cinss	Speed Ind year	Level (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	12345678310
Left Hand	11 12 13 14 15 18 12 18 19 20

2. Write with both hands "The quick brown fox jumps over a lazy dog"

Right Hand	The	Prok	pooun	100	oup	over	r a	bray	deg
eft land	The	Rok	heavy	600	Zap	oes	Q	bay	400

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The	<i>d</i> hick	only gabin Jups aver the bogy drasf.	
Left Hand	The.	quick	any goblin impo aver the pass during	

4. Write with both hands 'A to Z' in small letters.

	aded of ghiskimnoparsturvixyz
Left Hand	a be defydiokinn opgastavwyre

5. Signature with Left Hand

W	a v	1/		
3	-w/+/~	There		1

m.m.Kankle



Name*	SUREKHA BHIMAAT GADE	DOB	
Sex*	FIMAL	Date of Admission	
School/ College Name*	MSM Callage Aubad	Nature of Hand*	Rosi Right
Writing Skill (Languages)	English	Best Writing Skill	, sign
Class	Dped [Isem] I year	Level (Beginner/Lerner/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1.2,3,4,5,6,7,8,9,10,119-13,14, 15,16,17,18,1920
	1,2,3, 4,53,7,8,3,10,11, 12, 13, 19, 15, 16 17, 18, 19, 20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick brown for jumps over a 1927 dog.
Left Hand	The suick broug fox sumps over a lozy dog

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The quick only goblin jumps over the lazy dwarf.
Left Hand	the quik OPXX goblin Jumprover the last-dwart
	with both hands 'A to Z' in small letters.
Hand	ABCDEFGHIJKLMNOPPRSTUWXYZ

ABEDERGHIJKLMNOPARSTUVWXXZ

5. Signature with Left Hand

Left Hand



Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forensic Science) by Mr.

Siddiqui Mohd.	Khaja Moinuddin	(Research Scholar)	2018

Name*	Rayenotra Pryandeo Belote	DOB	18-08-1999
Sex*	MALE	Date of Admission	
School/ College Name*	MSM'S Cover of Pythkaul Education Aurageab	Nature of Hand*	Right
Writing Skill (Languages)		Best Writing Skill	F
Class	B.P.Ed Pinst Year	Level (Beginner/Lerner/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	12345678816
Hand	
Left	11 12 13 14 15 70 11 10 19 29
Hand	11 12 13 19 19 11 18 10 13

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

	The quick brown for jumps over a lover dog?
Left Hand	The gains boonch tax Jones over a bey dry"

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The	quick	owx	goblin	fumps	over	the	Jac your
Left Hand	The	quick e	ingos -	todin V	bump subi	er five	leza	hunt

4. Write with both hands 'A to Z' in small letters.

4. WINC	with both hands A to Z. In sitten refers.
Hand	ABCDEFGHIJKLMNOPORSTUVWXYZ
Left Hand	ABCOPERARZEUM NOPERATUVULVE

5. Signature with Left Hand



Name*	Kiran Fakirrao Warhale	DOB	24/10/1997
Sex*	Male	Date of Admission	
School/ College Name*	M.S.M Collage Aurangaba	Nature of Hand*	fight
Writing Skill (Languages)	Right hand	Best Writing Skill	Ų
Class	B.P.Ed 2nd year	Level (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1,2	. 3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Left Hand	12	3	4	S	\$	1	2 6	3	/D										

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The	quick	boown	Fox	Jumps	over o	lazy dog
Left Hand	The	quick	Provin	Fax	Jumps	040	ralas r dog

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

Right Hand	the quick onyx goblin jumps over the lasy duce
Left Hand	The quick once gabos sumps over the long duck

4. Write with both hands 'A to Z' in small letters.

Right Hand	ABCDEFGMIJKLMNOPARSTUNWXYZ	
Left Hand	ABC DEFENINKLANOPARSTU-WEYZ	

5. Signature with Left Hand



Name*	Sonaware Yogesh Ravind	DOB	14-11-1999
Sex*	MALE	Date of Admission	
School/ College Name*	MSM'S college of physical Educatio- Aurgabad	Nature of Hand*	01-2-2022
Writing Skill (Languages)	Caracter Constant	Best Writing Skill	
Class	B.P.Ed first year	Level (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	12345678910
Left Hand	11 12 13 19 15 16 17 18 10 28

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The	quich	brown	Fox	Jumps	over	đ	lary	dogg
Left Hand	The	genick	guan	肠	Jumps Jumps	aver	Ø	1085	\$9"

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The	quick	onyx	goblin	- jumps	over	the	1724 dward	P
Left Hand	The	ponick	onyx	90 bilin	Jumpe	2140	Mre .	17124 during	

4. Write with both hands 'A to Z' in small letters.

Right Hand	ABCDEFGHIJKLMNOP&RSTUVXWYZ	
	ABCOEFGHIJKLMNOPORSDUCKZ.	
Hand	H - STATIONER STOP	

5. Signature with Left Hand

91900

onware



Name*	Dovidas Gravit	DOB	
Sex*	mole college	Date of Admission	
School/ College Name*	MSM	Nature of Hand*	Plant
Writing Skill (Languages)	english	Best Writing Skill	
Class	B.Ped	Level (Beginner/Lerner/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 46, 17,	8,
Left	1.2. 3. 4.5. 6.7.0. 9.10.11. 12. 13.14 10 19. 10	α.:-
Hand	16-12.12.19.20	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	Woite with hands The quick for Jumps over a Jazy
Left Hand	write with hands The quick broken for Jumps

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	Write with The quick only gobling unps over lazy de
Left Hand	white with hands The quick goblin sumport

4. Write with both hands 'A to Z' in small letters.

Right	WA.B.C. D. FEF.G.H.I.J.K.L.M.N.O P.SR
Hand Left	ST. UV.W.X.Y 2. T.I.E.C.M.N.O.P.
Left Hand	A-B-C, D.E-F-G. H.I-J-E.C.M.N.O.P.

5. Signature with Left Hand

Class



Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forensic Science) by

	Mr. Siddiqui Mohd. Khaja Moinuddi	n (Research Scholar)	2018
Name*	Vikam Bhasle	DOB	13 Dec 1773
Sex*	Male_	Date of Admission	2022-23
School/ College Name*	MSM College, Albed	Nature of Hand*	Right
Writing Skill (Languages)	Euglish	Best Writing Skill	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

2ndy

Right	1 2, 3, 4, 5, 6,7,8,9,10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20
Hand	
Right Hand Left Hand	12345678910,11,1273141516171819,20

Level

Expert)

(Beginner/Lemer/

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick brown for sumps over a lozy dog!
Left Hand	The quict brown for jumps out a lazy day

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	"The quick own goblin Jumps over the Lazy dward"
Left Hand	The quick duy & goblin gumps over the way
1257	1.

4. Write with both hands 'A to Z' in small letters.

Right	A, B, C, D, E, F, GH, IJ, K, J, KL, M, NO, PQ, R, ST, VUBWXV2
Hand	
Left Hand	ABODGFGHEJKJKLMINOPORSTVUWXYZ

5. Signature with Left Hand



1. selfer



Name*	Saniz chavan	DOB	
Sex*	moule	Date of Admission	
School/ College Name*	msm college	Nature of Hand*	Right hand
Writing Skill (Languages)	Cinglism	Best Writing Skill	marradul, Mindh
Class	B.Red.	Level (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1,2,3,4,5,6,7.8,9,10
Left Hand	11,12,13,19,15-16,17,18,19,20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

	The quick brown Fox sumpsover a lazy dog
Left Hand	The quic brown FOR Jumps over a lazy Jog

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The quick only gobin	symps	over the	1a279	gmart
Left Hand	The quick any + goblio	JUMB	over the	1227	dularf

4. Write with both hands 'A to Z' in small letters.

Hand	apedefghiskimnopasstuvwxyr	
Left Hand	adederabilk Immo Paasta vwasz	

5. Signature with Left Hand



Name*	KAILAS NAMDEOGA	DOB	22/04/1996
Sex*	Male	Date of Admission	Jan 204
School/ College Name*	msmis physical education	High Nature of Hand*	Right
Writing Skill (Languages)	English, HINdI	Best Writing Skill	English
Class	B. p. ed	Level (Beginner/Lerner/ Expert)	Beginner

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1	2	3	4	5	6	2	8	9	10	U.	12	13	14	15	16	13	18	19	2.0
Left Hand	1	2.	Э	9	5	ī (5 7	g	1	to	17	X	13	14	15	/§	171	81	9	20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The	quick	brown	fox	jumps	over	a	1924	dog
Left Hand	THE	quick	brown	fox	Jump	- OVOY	0	1921	dog

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

	The quick only goblin jumps over the lazy dwarf
Left Hand	The quick only goblin Jumps over the lozy durif

4. Write with both hands 'A to Z' in small letters.

KLMNOPARSTUVWX42 J Right 9 H J BCDE f P Hand Left 9 HIJKLMNOP9RSTU N BCDE w Ð V Hand

6. Signature with Right Hand



Name*	Batty subsey channele	DOB	26-103 1837
Sex*	male	Date of Admission	
School/ College Name*	M.S.M Colle	Nature of Hand*	Radthg
Writing Skill (Languages)	Mangath: Exampts	Best Writing Skill	
Class	B.P.Ed III	Level (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	12345678.970.	
Left Hand	12343620910	

2. Write with both hands 'The quick brown fox jumps over a lazy dog' Right The Julick brown for SUMDS OVER 1azy dag-Hand Left block boy down Dut Hand he aviet do

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	the	8-414 K	errya	soblin	gung "	stree the	leery dump
Left Hand	120	SULV	ghy	erklin	JUNA	ver the	Down

4. Write with both hands 'A to Z' in small letters.

Right Hand	A	B	٤-	9 E	F	2	
Left Hand	Þ	B	0-	٦.L	A	2	

Signature with Left Hand 5.

au



Name*	AnuPound Meghrooj Danade	DOB	15/11/1988
Sex*	Female	Date of Admission	
School/ College Name*	MSM college Augangabad	Nature of Hand*	Right
Writing Skill (Languages)		Best Writing Skill	
Class	Bped-III sem (and years)	Level (Beginner/Lerner/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	12345678910	
Left Hand	12345678910	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quik brown	fox jumps over a lazy dog'
Left Hand	The guik book	for jumpsover a lazy dog"

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

Right Hand	The quik onyx goblin jumps over the lazy dwarf
Left Hand	The thick only goblin jumps out the long dought

4. Write with both hands 'A to Z' in small letters.

Right	ABCDEFGHTJKLMNOPORSTUVWXYZ
Hand	abcdefghijkimnop4rstuvwarz
Left Hand	abcdefghisk) mnoppystuvway2

6. Signature with Right Hand

 Rad			
 Andres			- 33



Name*	Zakalwade swiknyd H	DOB	10-8-1992
Sex*	formale	Date of Admission	,
School/ College Name*	MSm. conego of Physi.	Nature of Hand*	Right
Writing Skill (Languages)	marther, enginely, lind,	Best Writing Skill	engiish
Class	(2Nd Yr) B.P.ed	Level (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1	2	0	3	9	5	6	5	7	8	9	1	0	
Left Hand	17	1	12	15	2	15	12	/ଟ	PR)	6	Þ	20	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The	quick	brown	n, fox	jumps	ovet a	12240
Left Hand	The	DUTA	Brown	For	JUME CAR	Repip .	44.9

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The quick on yx gabin Jumps over the lary day
Left Hand	The gain any Dabin 14075 ave the long duat

4. Write with both hands 'A to Z' in small letters. Right Hand Left Hand Hand BBCJESGHAJELNWORF OSTEXNXYA

5. Signature with Left Hand





Name*	Hareshic meneziware	DOB	22-3-31
Sex*	male	Date of Admission	
School/ College Name*	MSM Colligue Physicleson	Nature of Hand*	
Writing Skill (Languages)	nicretathi	Best Writing Skill	Rignet
Class	BPED III sem	Level (Beginner/Lerner/ Expert)	Beginne

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1,2,3,4,5,6,7,8,3,10
Left Hand	UR131415,#17.18,19,20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The anice brace h Roy outminson era devery 200	
Left Hand	The said brown for lama so with herly ded	

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The gaick only & croblin source and doit double
Left Hand	The BUICK and suich any genering have all the branche

4. Write with both hands 'A to Z' in small letters.

Right	chibigdiefioihiz, Vik, UIM, WID, F.a. FIST, VIV, W, N, Y L
Hand	about entry his in the alapidonestic
Hand	

6. Signature with Right Hand

Anoth



Name*	Mithiel Bhogevan Pawore	DOB	15-01-1987
Sex*	Male	Date of Admission	
School/ College Name*	MSM Physical Education College Moluli, Kinh English	Nature of Hand*	Right
Writing Skill (Languages)	Moluli, Kinhi English	Best Writing Skill	English
Class	1.	Level * (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

3456789 10 11 12 13 14 15 16 17 18 18 20 12 Right Hand Left 219 1578 / 81819 ed ſ Hand

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

The quick blocan for surps one a bory dog! Right Hand Left RC evela the wick being Hand 3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf' The quick any gobbin says are the locy dwalt ' Right Hand Left Br del my goblin Jupon 1mil Hand 4. Write with both hands 'A to Z' in small letters. a, 5, Gd, e, f, g, h i j k 1 m nop 9 2 5 ta Vwpyz Right Hand Left dershija mu ayl 85 N.b.L Hand

6. Signature with Right Hand

r stim



Name*	Takmothe Yolesh Brabhakas	DOB	25/02/1998.
Sex*	Male.	Date of Admission	
School/ College Name*	M. S.M. collage.	Nature of Hand*	Right.
Writing Skill (Languages)	HRIET (Marathi)	Best Writing Skill	ময়ন্ধ্য-
Class	B. P. Col. II Your.	Level (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1	2-	3	'4	5	6	7	8	9	10	
Left Hand	1	2	3	4	5	6	7	8	I	10	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

						evor a		
Left Hand	The	quick	bitiwn	fox.	Jump	3 aversa	1037	dep

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The duick only goblin jumps over the lazy chubert
Left Hand	The fuick and adding number are the laty durit

4. Write with both hands 'A to Z' in small letters.

Right	ABCDEFGHIJKLMNOPARSTUVWXYZ
Hand	A MARTINIA PORTAL AND A THINK AND A
Hand	ABCJEFGHIJK LYNOPARSPUNKYJZ

5. Signature with Left Hand

100



Name*	Suraj Jagan Aher	DOB	618/1995
Sex*	Mate	Date of Admission	- Tall Arth
School/ College Name*	MSM college	Nature of Hand*	risht
Writing Skill (Languages)	Englist	Best Writing Skill	
Class	speal . 3 nd sem	Level (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1	L	3	4	5	6		8	9	1	0	\int'	À
Left Hand	1	12-15	4	15	14	5	18	12	23				

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	'The quick Jonoun for Jumps over a long .	'Bad
Left Hand	t the quick brown for James one a c	lacy diag

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The	quick	onyxo	gablin	Jumps	oven	the	Jozy	toanf'
Left Hand	The	quick	DUAX	gablin	Jumps-	ever	the	lazz	domat 1

4. Write with both hands 'A to Z' in small letters.

Right Hand	A +8 2_
Left Hand	Atoz

5. Signature with Left Hand



wed



Name*	Darade Poonum Dattu	DOB	4	06/7995
Sex*	female	Date of Admission		
School/ College Name*	M.S.M.'s college of Phyed	Nature of Hand*	Rig	tht
Writing Skill (Languages)	traeathi, englich, Hindi	Best Writing Skill		
Class		Level (Beginner/Lemer/ Expert)		

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	12345678910	
Left Hand	1) 12 13 14 15 16 17 18 19 20	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The	qwick	brown for Jumps over a lozy deg
Left Hand	The	quick	brown For Jump over a lazy dag

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The	quick	ontx	goblin	Jumps	over	the	lozy dualf
Left Hand	The	guitte	XYOD	9 din	Jump	OVPr	450	lazy duba

4. Write with both hands 'A to Z' in small letters.

Right Hand	a bedefghijk LM Mno PAKStuvWX72
Left Hand	ancdershijkim nongystuvwxyz.

5. Signature with Left Hand

Pelande



Name*	Pallani Ravindra Elis	DOB	10/05/1987
Sex*	Pemale	Date of Admission	
School/ College Name*	MSH'S collage of Physicared.	Nature of Hand*	Right
Writing Skill (Languages)	000	Best Writing Skill	
Class		Level (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	12345678910
Left Hand	11 12 13 14 15 16 17 18 19 20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick brown pox jumps over a large day?
Left Hand	The quick brown for jumps over a larget day!

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	"The quick only c	goldin	jumps over the lazy dwarp'
Left Hand	The quick only a	septin	strongs over the lagge drawy.

4. Write with both hands 'A to Z' in small letters.

Right Hand	a ocdebghijkemnopg sstur w xyz	
Left Hand	abcdefghijklossopqesturweyz	

5. Signature with Left Hand



Name*	Alash Babashab Gailwood	DOB	28/03/1994
Sex*	male	Date of Admission	l l
School/ College Name*	prostal caluation Abuel	Nature of Hand*	Right
Writing Skill (Languages)	- अंशही	Best Writing Skill	- अशाही-
Class	B. P. Ed (Indyear)	Level (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1234567891011 12 13 14 15 16 17 18 19 20
Left Hand	12345678910 11 12 1914 15 1617 18 19 20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick brown for tump over a lary dog
Left Hand	The quick booton For Jump over a lazy dog.

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The	quick	anyx	ġobUn	Jumps	over	the	lazy	dwarf
Left Hand	The	quick	онух	goblinju	ingo ore	T He	1927	, dwan	¢f

4. Write with both hands 'A to Z' in small letters.

	ABCDEFGHIJKLMNOPORSTUVWXY2
Hand	
Left	ABCDEFGHIJKLMNOPORSTUVWXYZ
Hand	the second strengthere is the second strengt

5. Signature with Left Hand

Parter



Name*	Vinod Nogare	DOB	
Sex*	M	Date of Admission	3050
School/ College Name*	M.S.M. college	Nature of Hand*	Right
Writing Skill (Languages)	English	Best Writing Skill	
Class	BPEd	Level (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	12345678310
Left Hand	11 12 13 14 15 16 17 18 19 10

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quik brown for Jumps over a larged of
Left Hand	The quik brown for Jumps over a lary dog

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand Left Hand	The	quiel	- ony,	7061	ni Jups	over	the l	aex duant
Left	The	quick	ontr	goblin	JUMPS	CUEX	lazy	dusadf
Hand	1116							

4. Write with both hands 'A to Z' in small letters.

Right Hand	ABCDEFNHIJKLMNOPERSTUVNXXX	
Left Hand	ABCDEFNHIJKLMNOPERSTVVWX2	

5. Signature with Left Hand

Simo?

Sinod



Name*	Bhushan Hizalal Gujar	DOB	
Sex*	М	Date of Admission	2020
School/ College Name*	M.S.M CONDC	Nature of Hand*	Right
Writing Skill (Languages)	English	Best Writing Skill	
Class	BPEJ	Level (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right	1234567891011121314151617181920
Hand Left	1234567891011121314151617181920

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The gaick brown fox jumps over a lazy dog
Left Hand	For avial boot to Fax Junes ever a 192% of 7

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

Right Hand	The quick only gobin Jumps over the lazy durant.
Left	The quick only gobin Jumps over the lazy durant.
Hand	The quick only Bain Jumps over the lazy durant.

4. Write with both hands 'A to Z' in small letters.

Right	ABCDEFGHJXINMOPORSTWWXYZ
Left	ARCZEFFFHIJUNNERCESTUWYZ
Hand	1. 1.1.5.0

6. Signature with Right Hand

the constrate

Boundarion



Name*	AARTI RADONANDRA CHICLAR	DOB	11/09/75			
Sex*	FERALE	Date of Admission				
School/ College Name*	MSMCOLLEGE	Nature of Hand*	RIGHTHAND			
Writing Skill (Languages)	ENGLISH	Best Writing Skill				
Class	BPED 314 sero	Level (Beginner/Lemer/ Expert)				

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1	2	3	4	2	C	7	8	9	10	
Right Hand Left Hand	1)	12	13	31	41	5 /6	17	18	19	20	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

	The quick brown fox sumps over a Lazy day.
Left Hand	The quick brown fax sumps over a lazy des

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The quide	ony *	deerin	JUMPS	over the	lasy duote
Left Hand	The quick o	nyx go	blin Jon	ips over	the large de	af

4. Write with both hands 'A to Z' in small letters.

Right Hand	abedefahijkimno	krwu	0000	rst uv
Left Hand	aprestarijkimu o	pgrs	TOVWAY	2C

5. Signature with Left Hand

the it.	Hare	
1. N		3

Hale



Name*	Saemaik Peizanka	DOB	24/04/99
Sex*	Female	Date of Admission	
School/ College Name*		Nature of Hand*	Weite
Writing Skill (Languages)	Anaeathi	Best Writing Skill	
Class	2nd Year Bled	Level (Beginner/Lemer/ Expert)	Leaner

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand Left Hand	1,2,3,4,5,678910
Left Hand	12345678910

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick beown Fox Jumps over 1	S
Left Hand	The quick beaun fox I wrongs	over a lazy
3. Write	with both hands 'The quick onyx goblin jumps over the lazy dwarf'	ciag'
Right Hand	The quick only goblin jumps over the	lazy d-warf'
Left Hand	The quick annue goblin sumpsone	HE JAZY AWARD

4. Write with both hands 'A to Z' in small letters.

Right	ABCDEFGHIJKL MNOPGRSTUVWXYZ
Hand	
Left	ABCIEFGHIJKLMNOPQRSTUVWXYZ
Hand	procession and ching den vous 12

6. Signature with Right Hand

shall

Manail



Name*	Archang Sotala	DOB	08/04/2986
Sex*	Female	Date of Admission	-0
School/ College Name*	Mam's Physical E.C.	Nature of Hand*	Right
Writing Skill (Languages)		Best Writing Skill	
Class	BPECT TE Med years	Level (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20
Left Hand	1,2,3,45,6,7,8,9,10,11,12,13,14,15,16,17,18

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	"The quick	because for jumps over a lazy dag'
Left Hand	The quick	beautin Fox Jumps over a 1924 dog?

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The							lazy dwarf
Left Hand	The	wick	xcno	adoe	Jumps	OVER	#K	hay dune P

4. Write with both hands 'A to Z' in small letters.

Right	A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z
Hand	NO(010101011)-010-,4,1010) 011011001401 (10,10,10,10,10)
Left	A.O.C.P.E.F.G.H.I.J.K.L.M.N.O.P. Q.RST.V.VWXX
Hand	meeters a factor and the best of the

5. Signature with Left Hand



Name*	EHAIKH UMER SIRHNDER	DOB	02-03-1897
Sex*	male	Date of Admission	
School/ College Name*	M-5.M	Nature of Hand*	Right
Writing Skill (Languages)		Best Writing Skill	
Class	Bped 2nd year This say	Level (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

	1 2 3 4 5 6 7 8 9 10	
Left Hand	111213 94 151617181920	11 12 13 1415 16 17 18 19 20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The	quick	brown	fox	jumps	over	Ċ4	lazy	dog	
Left Hand	The	quick	brown	for	JUMPIS	aver	Q.	Jagy	dog	

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The	quick	Onyx	goblin	jomps	over	the	Jazy	dwarf.
Left Hand	The	quick	owky	goblin _	Jumps <	V9VC	the	los	Gonsel .

4. Write with both hands 'A to Z' in small letters.

Right	5263 A. P. AND WHITE DC	Mar 162		
Hand				
Left				
Right Hand Left Hand				

- 5. Signature with Left Hand
- Rowas Jones
- 6. Signature with Right Hand





Name*	Dabhade Ajay Rajendra	DOB	9410811998
Sex*	Male	Date of Admission	
School/ College Name*	MSM's physical Educad	Nature of Hand*	Right
Writing Skill (Languages)	Constant.	Best Writing Skill	
Class		Level (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1	2	3	4	5	6	7	8	9	10	
Left Hand	11	12	13	14	12	16	- (5	z (.	819	20	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The	quick	brown	fox jum	p over	a laz	y dog'
Left Hand	740	quic R	brown	fox jum fox jump	0292 a	Sazy	dog '

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The quick onyoc goblin jumps over the lazy dwarf.
Left	The quick only goblin jumps over the lazy dwarf.
Hand	The quick only goblin Jumps over the lazy damaf.

4. Write with both hands 'A to Z' in small letters.

Right Hand	abcdefghijkimnopgystuvwxyz	
Left Hand	abadesshisklanoparsturnays	

5. Signature with Left Hand

MMEN



Name*	Tejas Poloskar	DOB	21/12/1997
Sex*	Male	Date of Admission	
School/ College Name*	M.S.M College , Aland.	Nature of Hand*	Right
Writing Skill (Languages)	English	Best Writing Skill	
Class	Bped II sem	Level (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1, 2, 3, 4, 5, 6, 7, 8, 3,10
Left Hand	11,12,13,19,15,16,18,18,19,20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick brown fox jumps over a lazy dag'
Left Hand	The quick brown tax jumps over a lazy dog

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The quick any goblin jumps over the lazy dwar!"
Left Hand	The quick DAYX SOBILITY MANPS OVER the lazy duasi

4. Write with both hands 'A to Z' in small letters.

Right Hand	A, O, C, D, E, F, G, H, 1, J, K, L, M, N, O, P, Q, T, S, T, U, V, W, 7, JZ.
Left Hand	ABCDEEGHIJKLMNOPQUSEVUWXYZ

5. Signature with Left Hand



Name*	Sazika Nogesh Dahibhate	DOB	(4)04) 1993
Sex*	Female	Date of Admission	
School/ College Name*	MSM college Aurangabad	Nature of Hand*	Right hand
Writing Skill (Languages)		Best Writing Skill	
Class	BPEd (IL sem) 2 nd year	Level (Beginner/Lerner/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

	1,2,3,4,5,6,7,8,9,10
Left Hand	1112134151617181920

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

110104	The quick brown fox jumis over a large dog.
Left Hand	The quick train for janps of a last day.

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

	The quick only a goblin jumps over the 1934 dwarf
Left Hand	The graick only godlin Jumps abor the JBG Pwark

4. Write with both hands 'A to Z' in small letters.

Right Hand	a 6 cd efghijkimnoparsturwayz
Left Hand	abid ef ghijkimnopavstuvnogz

6. Signature with Right Hand

Variky



Name*	GAYKE MAYNEL PRABHAKAR	DOB	26/42/1991
Sex*	Female.	Date of Admission	
School/ College Name*	MSM'S callege Allhongaboral	Nature of Hand*	Right hand
Writing Skill (Languages)		Best Writing Skill	
Class	B.p.ed 2-year.	Level (Beginner/Lerner/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

CONTRACTOR CONTRACTOR	
Right	12345678910
	11 12 131415 16 1718 19 20
	HHABYE 12-34356 3.83 10
Hand	11 12 13 14 13 50 17-18 19 22

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	the quick brown fox jumps over a lazy dog	
Left Hand	the quick bown for lumps over a loss by	

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The quick only goblin jumps over the lazy doworf.
Left	The quick anyox goblin jumps over the lazy doworf.
Hand	The quick anyox goolin jumps over the lazy doworf

4. Write with both hands 'A to Z' in small letters.

Right	ABCDEFGHIJKLMNOPORSTUVWXYZ	
Hand		
Hand	Abadefghijkinnopaystyvwxx2	

6. Signature with Right Hand

Hughi



Name*	Amel Ashok Ranhod	DOB	03/012/1997
Sex*	Male	Date of Admission	
School/ College Name*	M.S.M Colleage	Nature of Hand*	Right.
Writing Skill (Languages)		Best Writing Skill	
Class		Level (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right	1	2,	3	4	5	6	7	8	9	10	11	12-	13	14	15	16	14	18	19	20
Hand Left Hand	1	2	ß	4	3	6	7	\$	٩	10	f)	12	19	11	71	514	17	18	17	27

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The	quick	Prome	tax	Jumps	over a	laz-1	903.
Left Hand	The	quict	s brow	0 20	5 Juni	ps over	a 10	ears dog

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	the	QUICK	SHUD	2001	in Jur	NPS OV	ra the	1921	dward
Hand		III CONTRACTOR	4		aphlia	Lunter	mond +	he last	1 demant
Left	The	gv.	CX O	nxx	Termin	domes	Ove .	DC INTE	or charte
Hand	Automation of the second								

4. Write with both hands 'A to Z' in small letters.

Right	ABCdef ghijkimnoparstuvexyz
Hand	1
Left	ANCARESHINKIMNOPAYSTUNWXYZ
Hand	

5. Signature with Left Hand

thel

Rathod



Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forensic Science) by Mr. 18

Siddiqui Mohd. Khaja	Moinuddin (Research	Scholar) 20
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Name*	Rahul Shivaji Lavonge	DOB	05/01/ 1997
Sex*	male	Date of Admission	
School/ College Name*	MSM College, Aurongobod	Nature of Hand*	Right
Writing Skill (Languages)		Best Writing Skill	
Class		Level (Beginner/Lerner/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	12345676310
Left Hand	11 12 13 14 15 16 (7. 18 19 20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	"The quick brown for jumps over a lazy dog"
Left Hand	The quick boown for jumps over a large dog

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

	The quick only goblin jumps over the lazy da	
Left Hand	The quick only goolfn junies over the lacy dwarf	

4. Write with both hands 'A to Z' in small letters.

Right Hand	ABCDEFEHIJKLMNOPARS TUVWXYZ
Left Hand	ABODEFEN IJALMNOPGRSTUVU XYZ

5. Signature with Left Hand



Name*	Manish Nandlal pahaeoliya	DOB	20/10/1995
Sex*	male	Date of Admission	
School/ College Name*	MSN College of Physical	Nature of Hand*	Right
Writing Skill (Languages)		Best Writing Skill	
Class	SP. Ed and Jean	Level (Beginner/Lerner/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	12345678910
Left Hand	11 12 13 14 15 16 17 18 19 20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The Lukk brown Fox jumps over a long alogs
Left Hand	The quick brown Fast DUMP OVER 1124 day

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	the	2110	aryx	gallin	Jumpor	er me	1027	dwarF.
Left Hand	The	- 9.4ic)	t onto	1406	im Jump	0V @8 7	melos	dwarF. Y dugst

4. Write with both hands 'A to Z' in small letters.

Right Hand	abed e pghij klmnoperstyvwye.	
Left Hand	abedefahijkimnoperstyvwxyz	

6. Signature with Right Hand

funt



Name*	kokani kiran fulsing	DOB	\$9/00/1994
Sex*	Male	Date of Admission	
School/ College Name*	MSM college Aurangab	Nature of Hand*	Right
Writing Skill (Languages)	English	Best Writing Skill	
Class	BPEd 2-pear	Level (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1234567891011121314151617181920
Left Hand	123456783 1011 121314151617 1819 20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The	quick	brown	for	Jumps	over	e.	1927	pal	
Left Hand	The	dict	620100	for	JUDPS	oter	4	1037	Cop	

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The	quiek	ONYX	goblin	Jumps	over	the	lazy dwarf
Left Hand	The	quick	onyar	gobin	James	over	The	18 ZY Javart

4. Write with both hands 'A to Z' in small letters.

Right	ABCDEFGHIJKLMNOP&RSTUWXXYZ
Hand	ABCDEFGHIJKLMNOP&RSTUWXXYZ
Left Hand	ABADEF941JKLMNOPQBSTOVWXYZ

5. Signature with Left Hand

Robani



Name*	Kakani Sheizam Sunal	DOB	13,05 1997
Sex*	male	Date of Admission	
School/ College Name*	M. S.M. Callege Autoingablac	Nature of Hand*	
Writing Skill (Languages)		Best Writing Skill	Right Hand
Class		Level (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1.2.3.5,5,6,7,8,9,10
Left Hand	11, 12, 13, 19, 15, 17, 8, 19,20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick booton for jumps over a lazy dog '	
Left Hand	The quick book how impossives a largy dog?	

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The	quick	anyse goldin	n jumps over.	the lazy o	Jwart
Left Hand	The	quick	onyx gab	n jumps over in jumps over	. the lazy	davad

4. Write with both hands 'A to Z' in small letters.

Right	ABCOBFGAIJKLMNOPORSTOVWXZY
Hand	
Left Hand	ABOJEFGHIJKLYWODARSSUVWXZY

5. Signature with Left Hand

* Karry

Kokeeni



Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forensic Science) by

Mr.	Siddiquī	Mohd.	Khaja	Moinuddin	(Research	Scholar)	2018	į
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Name*	kokan'i Hanish sarresh	DOB	29/04/#1299
Sex*	Male	Date of Admission	
School/ College Name*	M.S.M. Callage autoangabad	Nature of Hand*	Pight
Writing Skill (Languages)	English	Best Writing Skill	
Class	bled zzeat	Level (Beginner/Lemet/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

 Right
 1 2 3 4 5 6 7 8 9 10

 Hand
 Hand
 Hiz 13 14 5 6 7 8 9 10

 Left
 Hand
 Hiz 13 14 5 6 7 8 9 10

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The	quick,	potersu	\$0×	Jumps	aver 4	1927	dog
Left Hand	Tre	9wck	bratum	tox.	Jumps	over	tazy	dog

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The quick only goblin jumps over the 1027 departs
Left Hand	The quick only goblin jumps over the lazy dours

4. Write with both hands "A to Z' in small letters.

Right	ABCOEFGHIJKLMNOPQRSTUVWXY2
Hand	
Left	LA FRANK STATISTICS AND STATISTICS STATISTIC
Hand	480DEFGHIJKLMNOPQRSTUVWXY2

5. Signature with Left Hand

June



Name*	Pakinde Grined Doulatero	DOB	10-10-1996
Sex*	Male	Date of Admission	
School/ College Name*	M.S.M College, Augongalad	Nature of Hand*	Right
Writing Skill (Languages)	English , maeethi	Best Writing Skill	HOISI
Class	B.R. S.Y III & Sem.	Level (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right	12345678910
Hand	11 12 13 14 15 16 17 78 19 20
	1-01713101718020
Hand	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The	quick	beown	fox	jumps	OVEE	9	lozy day .	
Left Hand	The	quick 1	DEOWN F	in u	nute or	Lee q	19=	y dog	

3. Write with both hands *The quick onyx goblin jumps over the lazy dwarf*

Right Hand	The	quick	onyx	Joblin	jumps	OVEE	the	laz y a	alwordf
Left Hand	The,	94×k	onya	Poblin	Juns	Wel	the	9251	duqok.

4. Write with both hands 'A to Z' in small letters,

Right Hand	ABCDEFGHIJKLMNOPGRSTUVWXYZ
Left Hand	ABCDEFGHIJKUMNOP&RSTUVWXYZ

6. Signature with Right Hand

antshi

Janest 27



Name*	Fulare Amit Manik	DOB	09-04-1999
Sex*	Male	Date of Admission	
School/ College Name*	M.S.M. college	Nature of Hand*	Right
Writing Skill (Languages)	संदर्गडी	Best Writing Skill	मराही .
Class	B.R.ed. Zyew III sem	Level (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	12345678910
Left Hand	11/21014-151617181920

2. Write with both hands "The quick brown fox jumps over a lazy dog"

Right Hand	The quick	brown fox Jumps by own fox Jumps	over	Ø	lazy doy
Left Hand	The Syick	byown for Jumps	over	a	1077 dog

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The	quick	oryx	goblinjumps	over the lazy durat
Left Hand	The	gair S.	слух	Schart Children	over the lazy down f

4. Write with both hands 'A to Z' in small letters.

Right Hand	(ABCDEF ghij K	A	102	AtoZ-
Left Hand			100	

6. Signature with Right Hand



Name*	Nayan, Ganes, Normal	DOB	28/04/22
Sex*	Female	Date of Admission	
School/ College Name*	MSM college of Physical oduction	Nature of Hand*	Right
Writing Skill (Languages)	English , manufi	Best Writing Skill	English
Class	BPed I year	Level (Beginner/Lerner/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1	2								10	
Left Hand	11	12	13	14	5 (6	517	-18	19	1	ò	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick human for fumps over a lary dog
Left Hand	The quick brown for jumps over a long dog
3. Write	with both hands 'The quick onyx goblin jumps over the lazy dwarf'
Right Hand	The quick any giblin jumps over the Lazy dwarf
Left Hand	The quick only goblin jump over the lazy dwarf
4. Write	with both hands 'A to Z' in small letters.
Right Hand	abcdefghijklmnopgest uvwkyz
Left Hand	a b c d e f ghiskim nongestuvaryz.

5. Signature with Left Hand



Name*	Arbyz Isamoddin Shaik	DOB	14/08/1999
Sex*	Male	Date of Admission	- 11 - 0 1 - 9 - 3 - 3
School/ College Name*	M.S.M College	Nature of Hand*	
Writing Skill (Languages)	Marthe & Einglich	Best Writing Skill	Brachet
Class	B.P.ed send yers	Level (Beginner/Lerner/ Expert)	horres

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1,2,3,4,5,6,7,8,9,10	
Left Hand	1,2,3-4,5,8,7,8,9.10	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The	quick	brown	fox	jumps	over	q	hory	deq"
Left Hand		22			an a			r.	0

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The quick	onyx solblim	Jumps over the large
Left Hand			buents

4. Write with both hands 'A to Z' in small letters.

Right Hand	ABCDEFSHIJKLMMOPARS
Left Hand	TUVWXYZ

6. Signature with Right Hand

thin M



Name*		- Contraction of the second se	
	Komal Swadkar	DOB	21-5-1996
Sex*	femall.	Date of Admission	
School/ College Name*	M.S.M. College	Nature of Hand*	Right.
Writing Skill (Languages)	Marathi/English	Best Writing Skill	Marathi.
Class	B.P. ed - 2nd you	Level (Beginner/Lerner/ Expert)	Lerner

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1,2,3,4,5,67,8 9.10
Left	1,2,3,4,5,67,8 3.10
Hand	11,12,(3,14,15,15,17)8,19,10

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

				fox Jumps over a Lazy dog.
Left Hand	The	guick	prome	Fox JUMPS over a Longy dog.

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

Right Hand	the	quick	onyx	goblin	Tumps	over	Lazydwark
Left Hand	The	guick	ONYS	soblin	JUMPS	over	Lazy dwarf

4. Write with both hands 'A to Z' in small letters.

Right Hand	ABCDEFGHIJKLMNOPSRSTUVWXYZ
Left Hand	ABODEFGHIJKLMNOPQASTUNWXYZ.

5. Signature with Left Hand





Name*	Pratik Patil	DOB	15-07-94
Sex*	Male.	Date of Admission	
School/ College Name*	For Mor College	Nature of Hand*	Right.
Writing Skill (Languages)	Marrathi, English	Best Writing Skill	
Class	B. P. Ed. 2nd	Level (Beginner/Lemer/ Expert)	Lesmar

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1,21314,5,6,7,8,5,10.
Right Hand Left Hand	(1.123.49678910

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick	brown	Fox	jumps	over	a lazy o	dog.	
Left Hand	The guick	brown	Fox	junes	over	a longy	dob.	

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The	quick	onyx	Joblin	jumps	00-01	the	1027	Juad.
Left Hand	The	quick	onry.	goblin	viump3	0000	the.	YELI	-livael. Skogrf

4. Write with both hands 'A to Z' in small letters.

Right Hand Left Hand Hand

5. Signature with Left Hand



Name*	Sagar vishna powar	DOB	29-11-1097
Sex*	Male	Date of Admission	
School/ College Name*	M.S.M College	Nature of Hand*	Right
Writing Skill (Languages)	months of Ginalash.	Best Writing Skill	
Class	B.P.ed. 2hd	Level (Beginner/Lemer/ Expert)	Levar

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1, 2.3.4.5.6.7.8.9.10
Left Hand	0188782451

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The	quick	brown	вх	jumps	over a la	ex dog'	
Left Hand	THR	¥4/10	K bu	wh	Ar	over a la. J'Whors	ulleva	(A5)

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	THE GRIEK	ohy X	goblin SumPs	over the	1024 doorf
Left Hand	Silve MT	OLITY	c orbity vice	mes det	1024 doort

4. Write with both hands 'A to Z' in small letters.

Right Hand	A	в	C	D	E	F	6	н	1	J	KC	M	NO	20	KS	TOUWXYZ
Left Hand	Ą	2	Ç	D	E	F	G	4	1	5	ka	M	1X @1	p q f	25	TOUWXYZ NUVUXUZ

6. Signature with Right Hand



Name*	Shubham UHam Gaikwad	DOB	07-13/07/1906
Sex*	male	Date of Admission	0.01100
School/ College Name*	ms. M thysical Education	Nature of Hand*	Right
Writing Skill (Languages)	English	Best Writing Skill	
Class	Biled, 2 kis.	Level (Beginner/Lerner/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1,2,3.4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20
Left Hand	09.01, 81, 11, 31, 31, 12, 13, 14, 15, 15, 15, 15, 19, 19, PO

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick bookin for jumis over a lazy dog
Left Hand	The quick broken for Numisover a larry deg

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	ONISK ONA	gablin	jumps over	5 the	1027	dwoof.
Left Hand The	autick got	tin Sun	nps dues	the	10027	Benowald

4. Write with both hands 'A to Z' in small letters.

Right	A.B.C. D'E.F.G.H.T.T.K.L.M.N.D.P.Q.K.S.T.V.Y.
Hand	HX V T
Left	
Hand	A.B.C, D'E.F, G, H, T, J, K, L, M, N, O, P, Q, K, S, T, U.Y. A.B.C, D. E, F, G, H, T, J, K, L, M, N, O, P, Q, K, S, T, U.Y.

5. Signature with Left Hand

6. Signature with Right Hand

42

Norom EM



Name*	Balingon Rathad	DOB	10/4/1931
Sex*	Male	Date of Admission	1 (1000)
School/ College Name*	M.S.M Calique	Nature of Hand*	
Writing Skill (Languages)	English, Mindi Marath	Best Writing Skill	Right
Class	and	Level (Beginner/Lerner/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

2345 6383 1011 Right Hand Left SIA BI KIFIBIEIA 0C 54 Hand

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	the guiker boo	why for sum	es orena laza	daa
Left Hand	The gaidh Even	A Br. hum	EVER 100xd	CR CR

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right ONTX BOUTINS OBJECT THE The galick Hand lary Left YZ B Hand mil

4. Write with both hands 'A to Z' in small letters.

Right Hand	ABCDERCHHIJKLMNOPARSTUNDWZ
Left	ABODEFONHJJKLMNOPERSTUNNYZ
Hand	ABODEFUNJILJKLMNOPERSTUNNYZ

6. Signature with Right Hand

Ratha

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Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forensic Science) by Mr. Siddiqui Mohd. Khaja Moinuddin (Research Scholar) 2018

Name*	Gavali Pradep Bhilipa	DOB	
Sex*	Male	Date of Admission	
School/ College Name*	M.S.M. College All sangabad	Nature of Hand*	<i>Right</i>
Writing Skill (Languages)	English	Best Writing Skill	Right Hand
Class	Bred 2 years	Level (Beginner/Lerner/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right	12345678910111213141516 1418 1920
Hand	in the second
Left	1236587891011010100000000
Hand	1234567891011121314151614181920

2. Write with both hands "The quick brown fox jumps over a lazy dog"

Right Hand	the quick brown for jumps over a lazy day	
Left Hand	the given brown by jumps over a 1024 by	

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	the quick only goblin jumps over the lozy dwarf	
Left Hand	the quick only yoblin jumps over the roy didget	

4. Write with both hands 'A to Z' in small letters.

Right ABCDELGHIJKLMNOPVWXJZ-Hand ABCDELGHIJKLMNOPORSTVWXJZ

5. Signature with Left Hand

mill



Name*	Aetan Jaitmal	DOB	6/7191
Sex*	male	Date of Admission	
School/ College Name*	M.S.M. College Aurorgan	Nature of Hand*	Right
Writing Skill (Languages)		Best Writing Skill	Right Hand
Class	BPed II Year	Level (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

	1,2,3,4,5,6,7,8,9,10
Left Hand	11, P. B. K. 15, 16, 17, 18, 0, 20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick brown fox Jumps over a lozy dog
Left	The quick brown fox Jumps over a lozy dog.
Hand	The quick brown fox JUMPS OVER a lazy dog.

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The	quick only	gablin Junps over -	the	lost 1	dog-
Left Hand	The	quick only	900 Jun Banks aver	C UP-	- the	lazy duarf

4. Write with both hands 'A to Z' in small letters.

Right Hand	A, B, C, D, F, F, G, H, I, J, K, L, M, N, O, P, Q, RIS, T, V, V, W, X, Y, Z
Left Hand	A.B. S. D. E. E.G. H. J.J. K. L.M.N. P. Q. R.S. TO. D. W. K.S.

6. Signature with Right Hand

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Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forensic Science) by Mr. Si

iddiqui Mohd. Khaja Moinuddin (R	tesearch Scholar) 2018
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Name*	Shinde Madhuri Subhash	DOB	18/03) 1996
Sex*	female	Date of Admission	
School/ College Name*	M.S.M. College, Auswingsbad.	Nature of Hand*	Right Hand.
Writing Skill (Languages)	Marathi	Best Writing Skill	Right Hand.
Class	B.P.Ed 1 sem,	Level (Beginner/Lemer/ Expert)	~

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,
Left Hand	1,2,3,4,3,6,7,8,9,10,11,12,13,14,13,16,17,18,19,20,

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick brown fox jumps over a lazy dog!
Left Hand	The pulk brown Fox jumps over a lazy dog.

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The	quick	ONYX	goblin	'jum Ps	over	dhe	1924	dwarf!
Left Hand	The	quick	YYNO ;	gobli	jumps njumps	s over	the	lacy	datas.

4. Write with both hands 'A to Z' in small letters.

Right Hand	A B C DEFONIJKLMNOPOTSTUVIOXYZ.	
Left Hand	ABCDEFGhijkLmnopgrsturwxyz	

6. Signature with Right Hand

Reshi

TEchipol



Name*	Vishwas Continued	DOB	17/ 10/ 1983
Sex*	mel	Date of Admission	
School/ College Name*	MS m Coty	Nature of Hand*	
Writing Skill (Languages)	Marthi Engis manthi	Best Writing Skill	Run
Class	8.p. and .	Level (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1.2345678610
Left	1.2345678610
Hand	11 1278 14 16 16 17 18 19 20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The	auick	Grown	For	Jun	ips over	e a	larg,	dog
Left Hand	The	quie	K bee	NUN	fox	Jumps	¢	1gzy	dag

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The	quick	ange	Tobli	n scon	4s over	the	tary	f Brene
Left Hand	The	quick	QHYX	goblin	JUME	syer +	he la	zy d	t sheemes

4. Write with both hands 'A to Z' in small letters.

Right Hand	A BCOEFGERIJKEMNOPARSTUVWXYZ
Left	ABCOEFGMIJKGMNOPQRSTUVWXYZ
Hand	ABCOEFGHIJKGMNOPQRSTUVWXYZ

5. Signature with Left Hand

6. Signature with Right Hand

170



Name*	Rote Swanker Bindwal	DOB	19,04,1999
Sex*	moy	Date of Admission	
School/ College Name*	ms mi coullege.	Nature of Hand*	
Writing Skill (Languages)	marti	Best Writing Skill	veryeball
Class	fist toles	Level (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1.23.	4.5.	6 -	2 8	2.9	10	11	121	314	15161717	y;
Left Hand	65										

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The	awk.	brown	for	jump	overe	a 1021	201	
Left Hand									

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	THE	eridet	ent	gasim	j wmbs	over	the	Jar	Jur
Left Hand									

4. Write with both hands 'A to Z' in small letters.

Right Hand	A.B.C.R.	FEI	G.K.L	m. W. DPe	R57572
Left Hand					

5. Signature with Left Hand



Name*	chunited shartilal Ratha	DOB	15/08/1995
Sex*	Male	Date of Admission	
School/ College Name*	M.S.M. Callege A.bad.	Nature of Hand*	Right. Hand
Writing Skill (Languages)		Best Writing Skill	Right. Hand
Class	BPER 5 Year	Level (Beginner/Lerner/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1.2,3,4,5,6,7,8,9,10
Left Hand	11, 12, 13, 19, 12, 16, 17, 18, 19, 20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

	may	dog
Left The quick brown for jumps over p	bry	day!

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	'The	quick	onyx	goblin jumps over the lazy dwarf,
Left Hand	The	quick	myx	golden jumps are nother door'

4. Write with both hands 'A to Z' in small letters.

Right Hand	A.B.C. D, E.F.G.H. I.T. KINLM.N.O. P.O. R.S.T.U.V.W.X.YZ
Left Hand	ABC, DEFGHIJKLMNOPQRSTUNXYZ

6. Signature with Right Hand

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Seputhorf.



Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forensic Science) by Mr. Sidd

liqui	Mohd.	Khaja	Moinuddin	(Research	Scholar)	201	8
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Name*	kamble Jay	DOB	2410911988
Sex*	Male	Date of Admission	
School/ College Name*	M.S.M. Clg of Physical edu.	Nature of Hand*	Right
Writing Skill (Languages)	English, Hindi, Marathi	Best Writing Skill	
Class	Blied. II year.	Level (Beginner/Lerner/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1	2	3	4	5	6	7	8	9	1 10		
Right Hand Left Hand	U, I	2	13	144,	15	К	19,	18	12	20		

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	" The quick brown	fox	jumps	over	a	lazy	dag 1
Left Hand	The quick brown fax	Jumps	oven	a laz	y #	dag i	

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	' The quick only goblin jumps over	the	lazy dwarf'
Left Hand	The quick only goblin jumps over The quick only goblin jumps over the	1a24	dwarf 1

4. Write with both hands 'A to Z' in small letters. Right A, B, C, D, E, F, G, H, T, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, N Hand A, B, C, O, E, F, G, H, I, J, K, L, M, NO, P. A, R, E, T, U, V, W, XI.Z Left Hand

6. Signature with Right Hand

adamblet

2 Jan block



Name*	Amol kailas shele	DOB	0-4:1599
Sex*	Male	Date of Admission	.,
School/ College Name*	M SM- College Aurangehod	Nature of Hand*	Alight
Writing Skill (Languages)	Maradin English	Best Writing Skill	Right
Class	B.p. Ed IIIndem	Level (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	12	З	4	5	6	7	8	رو	10	0	12	13 19 15 14 17 18 19 20
Left Hand	12	3	5	S	Ъ	≁	8	9	10	21	12	13 19 15 16 17 18 19 19 20 18 15 15 18 17 18 192

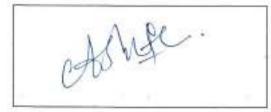
2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	the	quick	brown f	or Jun	ips over	a lary d	-9
Left Hand	the	quic	12 bou	in f	X TUP	npr over	day

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf' the quick only gobin Jamps over the He quick only gobin Jamps over the He quick only gobin Jamps over the 1924 doorf Right Hand Left Hand

4. Write with both hands 'A to Z' in small letters.

Right d 1b, < , d, e. f. 9. h. i 1)) K, 13, my 0, P, 9, R, S, Hand Left Hand 3



6. Signature with Right Hand



Name*	Vishal Shiveji Jadhov.	DOB	21/04/1883
Sex*	Male	Date of Admission	
School/ College Name*	mism collage Au.	Nature of Hand*	Right hand
Writing Skill (Languages)	Right hand	Best Writing Skill	
Class	BPEd. 2nd years	Level (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1,2,3,4,5,6,7,8,9,10	
Left Hand	112 13 14 15 16 17 18 19 20	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick brown fox jumps over a lazy dog.
Left Hand	The quick becown fox jumps over a lazy dog

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The	quick	onyx	goblin	jumps	OVEY	the	lazy	dwarf.	
Left Hand	The	quick	- onye	goblin	Jumps	- GARA	the	lazy	ductor	

4. Write with both hands 'A to Z' in small letters.

Right Hand	abed efghijk Imnopqvstuvwxyz
Left	abedefghijklmnopqvstuvwxyz
Hand	abedefghijklmnopqvstuvwxyz

6. Signature with Right Hand

Inder

Stedhar



Name*	Gamesn P. chavon	DOB	+6-80-10
Sex*	м	Date of Admission	
School/ College Name*	M.S.M. College Rom	Nature of Hand*	Right
Writing Skill (Languages)	Fnglish	Best Writing Skill	111000
Class	BRed III'rear	Level (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (I to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1.2.3.4.5.6.7.8.9.10
Left Hand	11.12.13.19 15.16.17.19 19 20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The	quick	brown	tox	JUMP	s over	a	lazy	dog
Left Hand	The	quisk	brown	fax	Jumps	over	9	hazy	dog

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The quick only goblin Jumps over the lazy
Left Hand	The thick only sold in Jumps over the lash

4. Write with both hands 'A to Z' in small letters.

Right Hand	adchefghijkimnoparetuvwxyz
Left Hand	addefatilkimneperstyuwxyz

6. Signature with Right Hand



Name*	Vasave Rabel Ramosh	DOB	12/07/1996
Sex*	mate	Date of Admission	
School/ College Name*	M.SM. college, Ausangabad	Nature of Hand*	Right
Writing Skill (Languages)		Best Writing Skill	
Class		Level (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1,2.3,4,5,67.8,9.10
Left	1,2.3,4.5,67.8,2 10
Hand	11,12,13,14,15,16.17,18,19,20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The	quick	brown	fox jumps	over a	lazy alog'
Left Hand	The	e quick	brown	fox jumps fox jumps	over a /	azy dag

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The quick only gobin jumps over the lazy dwarf
Left Hand	The quick onst y god in sumas wenthe lack deloop

4. Write with both hands 'A to Z' in small letters.

Right Hand	A.B.C.D.E.F.G.H.J	E.J.K.L.M.N.O.P. Q.R.S.T.U.Y.WX.
Left Hand	A.B.C.D.E.F.G.H.I	J.K.L.M.N.O.P.Q.R.S.T.U.V.WX.
		2

5. Signature with Left Hand

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		and the second se	
Name*	Vishwas Kad	DOB	07/04/1995
Sex*	male	Date of Admission	
School/ College Name*	M.S.M. college, a'bad	Nature of Hand*	Right
Writing Skill (Languages)		Best Writing Skill	
Class		Level (Beginner/Lerner/ Expert)	

1. Write I to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1, 2, 3, 4, 5, 6, 7, 8, 9, 10
Left Hand	11, 12, 13, 14, 15, 16, 17, 18, 19, 20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right	FThe	quick	brown	fox	Jumps	OVEY D	102y dog?	
Hand Left	F	wirk.	Latur	fox	TUMPS	over a	1034 dog	
Hand	Ine	14 de	proveri				0 0	

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right	" The	quick	onyx	goblin	JUMPS	over	she	laty dworf?	_
Right Hand Left Hand	The	quick	олух	goblin	JUMPS	OVER	The	lazy dwoxf?	

4. Write with both hands 'A to Z' in small letters.

Right	A.B.C.D.E.F.G.H.Z.J.K.Z.M.N.O.P.B.R.J.T.V.V.N.X.Y.Z
Hand	above F 2 htjk 1 mno Parstv r N XY \geq
Left Hand	abso EFSHTJEIMNOPO YStvrw XYZ

5. Signature with Left Hand

Incho

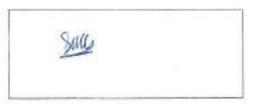
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		GALCOTT action for Completions of Resea figui Mohd. Khaja Moinuddin	uch Thushin Ph.D. (Forenic Science)
Name*	Saraj Sylonf	DOR	14-05-1996
Sex*	have	Date of Admission	
School/ College Name*	ms m conede	Nature of Hand*	£180+
Writing Skill (Languages)	English, 712 87	Best Writing Skill	
Clars	BP-62 2500 Level (Beginner/Lemen/Export)		
Right), i Hand	2,3,4,5,6,7,8	Right Hand 11 to 20 With Let , 9, 10 5 , 16 , 17 /60 , 1	
Right), Hand Left () Hand	2,3,4,5,6,7,8 ,12,13,14,[]	, 3, 10 5, 16, 17/60, 1	8,20
Right 1, 1 Hand 1, eff. 1, 1 Hand 2, 1 Right 4 Hand 4	2,3,4,5,6,7,8 ,12,13, 14, [] Write with both hands "Two he arrick boown-	, 9, 10 F, 16, 17, 10, 1 Guick bronns for jumps ove Pax JUMPS over 8	7,20 ratazy dugi o Mazgi dugi .
Right 1, 1 Hand 1, eff. 1, 1 Hand 2. Right 4 Hand 4	2,3,4,5,6,7,8 ,12,13, 14, [] Write with both hands "Two he arrick boown-	, 9, 10 F, 16, 17, 10, 1 Guick bronns for jumps ove Pax JUMPS over 8	7,20 ratazy dugi o Mazgi dugi .
Right), Hand () Hand () Hand () Right 4 Hand 4 Left 4 Hand 4 Hand 4	2,3,4,5,6,7,8 ,12,13, 14, 5 Write with both hands Two he aurick bosinon- the aurick bosinon- the avick bosinon-	, 9, 10 5 , 16 , 17 /60 , 1 c quick brown for jumps ove	Z r a bazy dog" ⊂ Mazg do∂. Sa ((110)y) d tig
Right Hand Left U Hand 2 Right Hand Left Hand 3 Hand 3	2,3, 4, 5, 6, 7, 8 , 12, 13, 14, () Write with both hands "The he quick booswon- the quick booswon- the quick booswon- the quick booswon-	, 9, 10 F, 15, 17, 10, 1 Calific brown for jumps over Pax JumPs over M FSX JUMPS OVS	P,20 r a bazy dog' □ Mzg do∂. So A [Dy] d DJ ver the bazy dwarF

Right Hard	A, B, L, D, E, F, OT, M, JJK, L, M, N, O, P, D & ST, U, V, W, N, Y, Z
Left Hard	ABEREFGHITTKLMN, OP-DIAST, UNWY JOA

5. Signature with Left Fland







Name*	sourabh m. Gosqui	DOB	20/07/1491
Sex*	male	Date of Admission	
School/ College Name*	m.s.m. college	Nature of Hand*	Right
Writing Skill (Languages)	English	Best Writing Skill	
Class	B.P. ed	Level (Beginner/Lerner/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1, 2, 0, 4, 5, 5, 8, 8, 9, 1, 10, 111, 12, 13, 14, 10, 14, 18, 14, 20
Left Hand	1,2,0,4,5,6,8,9,9,10,11,12,13,14,16,14,18,19,20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick brown for jumps over a lazy glog
Left	The quick brown poxjumpsover a Jazy dog
Hand	The quick brown pox jumps aver a

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The quick only goblin jumes over HL lozy dwarf
Left	The quick only goblin jumps over the lozy dwarf
Hand	The quick only of the in Jumps over the lozy

4. Write with both hands 'A to Z' in small letters.

Right Hand	(AB.C.D.E.F.G.H.J.J.K.L-M.H.P.P.					
Left Hand	A.B.C. D.E.F.G.H.I.T.KLM	P				

6. Signature with Right Hand



Name*	Array Larchard Gailkuned	DOB	02/03/1914
Sex*	Mare	Date of Admission	
School/ College Name*	M.S.M. College, A.Bad	Nature of Hand*	Right Hourd
Writing Skill (Languages)	English	Best Writing Skill	dender Midsel
Class	Bip.ed Second Years	Level (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1.234.5.6.7.8.5.10. H.
Left Hand	11.12.13.19.15.16.12.18.19.20

2. Write with both hands 'The quick brown fox Jumps over a lazy dog'

Right Hand	The quick beauth fox jumps over a lazy dog	
Left Hand	The Paulic become for judge of losy dog	

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The quice	OHYE	BODIN	jumps	over	The 1	a 27	તે ખેતરી.
Left Hand	The quick	ohyx.	Dobly	h Jumps	ave	the	102	> duara

4. Write with both hands 'A to Z' in small letters.

Right Hand	abcdef aniskimnopaesiuvuxyz
Left Hand	aborde f Shiskimno Parsfyry 2

6. Signature with Right Hand







Name*	Suvarna Anvind Takle	DOB	10-03-1989
Sex*	Female	Date of Admission	
School/ College Name*	MSM college, Auragebad.	Nature of Hand*	Right
Writing Skill (Languages)	02.8	Best Writing Skill	
Class	Bped 2nd year III sen	Level (Beginner/Lerner/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	123456789 10
Left Hand	112 1314 15 16 17 18 19 20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	"The	quick	പത്തി	fox	jumps	over	a	lazy	dog
Left Hand	The		brown						

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The	quick	onyx go	ublin ju	mps over	the	lazy	d wayf'
Left Hand	The	quict	t onyx	goblin	jumps 0	ver -	the la	sy loverf'

4. Write with both hands 'A to Z' in small letters.

Right Hand	abcdefghijkimpoperstuvwxyz
Left	abcdefghijkimnoperstuvwyz
Hand	ABCDabcdefghijkimnoperstuvwyz



Azatu



Name*	Marathe Hemburdsa.P	DOB	19/02)2022
Sex*	BER M	Date of Admission	
School/ College Name*	M. S. M. College Adraw	Nature of Hand*	Righ+
Writing Skill (Languages)	English	Best Writing Skill	
Class	B. P. Ed. 27097	Level (Beginner/Lerner/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1, 2, 3, 4, 5, 4, 4, 8, 9,18
Left Hand	11,12,13,17,15,17,18,19,20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The actick brown for Jumps over a lazy dog'
Left Hand	The gaine brown for times over a lazy sog

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The quick on yx goblin jumps over the 102 yolworf
Left	The quick only goblin jumps over the 102 yolworf
Hand	The quick only goblin jumps over the 1924 dweet

4. Write with both hands 'A to Z' in small letters.

Right Hand	P.BCDEFGHIJKLMNOPRRSTUNWXYZ
Left	P.BCDEFGHIJKLMNOPRRSTUNNXYZ
Hand	BBBDEFGHIJKLMNOPRRSTUNNXYZ

6. Signature with Right Hand

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Name*	Perprox Rosephisaele	DOB	21/12/1996
Sex*	m.	Date of Admission	
School/ College Name*	M-SM. College Albenth	Nature of Hand*	Risht-
Writing Skill (Languages)		Best Writing Skill	
Class		Level (Beginner/Leraer/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	12345678510	
Left Hand	11153 16 12 12 12 12 12 12	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The gudde bring Box tamps over a lazy dos
Left Hand	An anter person par services and a

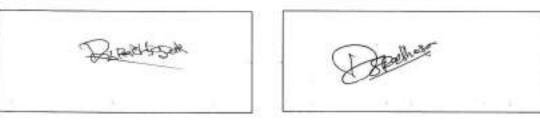
3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The guide onyx Joblin sums over the lazzderer
Left Hand	The quick on base blin Jumps ought work

4. Write with both hands 'A to Z' in small letters.

Right Hand	PIBICO & FGH I JULMAPARSTUNWX 72
Left	PIBICO EFGHIJTELMINOPERSTUNNX72
Hand	- ABCDEKOHIJKLANDORKSTUNNX72

6. Signature with Right Hand





Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forensic Science) by

Mr. Siddiqui Mohd. Khaja Moinuddin (Research Scholar) 2018

Name*	Rufuja sanjaj khade	DOB	15/07/1999
Sex*	female	Date of Admission	
School/ College Name*	M.S.M. College, Aurangabad	Nature of Hand*	
Writing Skill (Languages)		Best Writing Skill	Right
Class		Level (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right	1,2,3,4,5,4,6,7,8,9,10.
Hand	
Left	12-12-13,14,15,16,17,18,19,20
Hand	1 1 1 0 1 1 1 0 1 1 1 2 LO

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	the quick brown fox jumps over a lazy dog;
Left Hand	The quick brown Pox Jumps over a lazy day

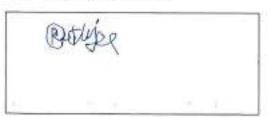
3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The quick	oply	goblin	JUMAS	OVEY	the	iazy	dwarf	
Left Hand	The quick	orth	x stability	Jumps	over	the	lazy	dwark	

4. Write with both hands 'A to Z' in small letters.

Right	a,b,c,d,e,F,J,h,1,J,K,L, M,N,O,P,q,7,5,T,U,VXXYZ
Hand	
Left	
Hand	abod. EFSDIJKLMYD. P98STUDWXYZ.

5. Signature with Left Hand





Name*	Katishma Khadbudin Rijahalas	DOB	4-07-1999
Sex*	female	Date of Admission	
School/ College Name*	M.S.M. millage Alida	Nature of Hand*	
Writing Skill (Languages)	0	Best Writing Skill	
Class		Level (Beginner/Lerner/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	12345673910
Left Hand	2237567890

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick brown for jumps over a large dog.	
Left Hand	The find adams to due otos a low buy	

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The quick onria gobtin jumps one the lazy dwarf.
Left Hand	The quick onra gobisn jumps over the lazy dwarf.

4. Write with both hands 'A to Z' in small letters.

Right Hand	ABCDEFGHIJKLMNOPASSTUVWYY2
Left	ABCDEFGHIDKLMNOPASSTUVWYYZ
Hand	RECDEFGHIDKLMNOPASSTUVWYYZ

5. Signature with Left Hand

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	statt standing as to state a second is a state state		
Name*	Mamber Manakers Musked	DOB	2.8 103 1995-
Sex*	Female	Date of Admission	
School/ College Name*	TISM'S College Ausongabal	Nature of Hand*	
Writing Skill (Languages)	English	Best Writing Skill	Right hundl
Class	Bped III ad JETY	Level (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right	one, two, there, fune, five, six, Swen, - Light, nine, Ten.
Hand	1,2,3,4,5,6,7,8,9,10
Left Hand	11, 12, 13, 14, 15, 16, 17, 18, 19, 20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	"The quick brown for sumps over a long day .
Left Hand	The guick beawn day jumps over a lezy dup.

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	"The quick any a gublin jumps over the lary dauge f"
Left Hand	"The guick only gottlin jump over the lazy dward"

4. Write with both hands 'A to Z' in small letters.

Right Hand	ABCDEFGHIJKLM NOPA RSTUVWXYZ.
Left Hand	R & COEFGHIJKLMNOPQKSTOVW×72.

6. Signature with Right Hand



Name*	Sarenthai Vitthal Kumbhar	DOB	20-05-1995
Sex*	Female	Date of Admission	
School/ College Name*	MEM college Altrongabad	Nature of Hand*	Rith
Writing Skill (Languages)		Best Writing Skill	
Class		Level (Beginner/Lerner/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1,2,3,4,5,6,7,7,9,10
Left Hand	11,12,13,14,15,15,17,19,19,20.

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick bourn for jumps over a lasy dog.
Left Hand	The quick beauth eax swops are a lagge dog-

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

Right Hand	The	quick	onga	gobliv	i jung	s ov	er t	he log	by dwarf	
Left Hand	The	quick	onya	goblin	jumps	CV/EE	the	12.32	duast	

4. Write with both hands 'A to Z' in small letters.

Right Hand	a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, z, s, t, u, v, w, x, Y, z
Left	a,b,c,d,e,f,g,h,i,j,k,1,m,n,o,p,q,z,s,t,u,v,w,x,Y,z,
Hand	a,b,c,d,e,f,g,k,i,j,k,1,m,n,o,p,q,z,s,t,u,v,w,x,Y,z.

5. Signature with Left Hand

Sugitai

6. Signature with Right Hand

-

Social

Sex*	Tadvi (Uminia	DOB	(Research Scholar) 2018 21 - 04 - 2003
	Female	Date of Admission	
ichool/ College Name	1101		Right handed.
Writing Skill Languages)	English	Best Writing Skill	
Class	BAUB-IStyn	Level (Beginner/Lemer/Expert)	hearner Beginner
	Write 1 to 20 (1 to 10 with R	ight Hand 11 to 20 With Lef	1 0
Right.		Statistics and the second second	2
a c 666 5 10	23456	18710	
Left Hand 11	1213141516	17-1210-20	
THERE		1 20172	
			e a lasse daa?
- 2	Write with both hands "The	quick brown fox jumps ove	r a saxy uog.
Right 1			0,101 - 22,07 - 24,00
Right Hand	he quick bee	wn fon guny	· · · · ·
Right Hand J Left 7		wn fon guny	0,101 - 22,07 - 24,00
Right Hand Left Hand	he quick been here	wn fon guny wn fox Jev	norn the layy dag
Right Hand Left Hand J	he quick been he tyricch been Write with both hands "The	wn fon guny wn fon gen guick onyx gublin jumps ov	or over the lagy day when over the lagg day er the lass dwart
Right Hand Left Hand	he quick been he tyricch been Write with both hands "The	wn fon guny wn fox Jev	or over the lagy day when over the lagg day er the lass dwart
Right Hand Left Hand Right Hand	he quick been he tyricch been Write with both hands "The he quick only 1	wn fon guny wn fon fen guick onys gobiin jungs or i goblin Jung	or over the layy dog the, over the logg day er the lass dwart ps over the largy id
Right Hand Left Hand Right Hand Left Z	he quick been he tyricch been Write with both hands "The	wn fon guny wn fon fen guick onys gobiin jungs or i goblin Jung	or over the layy dog the, over the logg day er the lass dwart ps over the largy id
Right Hand Hand Right Hand Left Hand	he quick been he tyricch been Write with both hands "The he quick only 1	wn fen guny wn fen guny quick onys goblin jungs or i goblin Jung goblin Jung	or over the layy dog the, over the logg day er the lass dwart ps over the largy id
Right Hand Left Hand S Right Hand Left Hand Kight A Right O	he quick been he tyricch been Write with both hands "The Ne quick onym ne quick onym ne quick onym Ne quick onym Ne quick onym	wn fon guny wn for fwr quick onys gobiin jumps or goblin Jum goblin Jum 2° in small letters.	or over the layy dag type, ONOI the logg dag er the lass dwarr ps over the lay id hs processor has lay d
Right Hand Left Hand Right Hand Left Hand Kight Hand A	he quick been he tyrice been Write with both bands "The he quick only on ne quick only of North with both bands "A to B C D E F G	wn fon guny wn fon guny quick onyx goblin jumps or goblin gung goblin gum Z'in small letters. HITTK LM	NOPQRSTUVWX
Right Hand J Hand J Right Hand J Left J Hand A Right Hand A Left Hand A Left Hand A	he quick but he tyricch baco Write with both hands "The he quick only on ne quick only of Northe with both hands "A to B C D E F G B C D E F G	wn fon guny wn fon guny quick onyx gobiin jumps or gobiin gung gobiin gum Z'in small letters. H I JK LM KLYN OP Q	NOP QRSTUVWX
Right Hand Hand Left Hand Left Hand Kight Hand Left Hand Left Hand Kight Hand Kight Hand	he quick but he tyricch baco Write with both hands "The he quick only on ne quick only of Northe with both hands "A to B C D E F G B C D E F G	wn fon guny wn fon guny quick onyx gobiin jumps or gobiin gung gobiin gum Z'in small letters. H I JK LM KLYN OP Q	NOP QRSTUVWX
Right Hand J Hand J Hand J Right Hand J Left J Hand A Right Hand A Left Hand A Left Hand A Left A	he quick been he tyrice been Write with both bands "The he quick only on ne quick only of North with both bands "A to B C D E F G	wn fon guny wn fon guny quick onyx gobiin jumps or gobiin gung gobiin gum Z'in small letters. H I JK LM KLYN OP Q	NOPPRSTUVWX

6	1	
6	5	E
GALC	OT	LA.S

Name*	Mine watched Bala	DOB	7 NOV 2003
Sex*	Male	Date of Admission	
School/ College Name*	M.P. Law College	Nature of Hand*	Right Handed
Writing Skill (Languages)	English	Best Writing Skill	
Class	BAILB -I	Level (Beginner/Lemen/Expert)	

1. Write I to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Hand	12345678910	
Left Hand	11 12 13 14 15 161718 19 20	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The	quick	grown	for jumps	over	a lazy	gog
Left Hand	The	quille	brawn	fore jumps fore jumps	0482	P 1d	the good

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The	quick	online goplin jumps over the lazy dwarf
Left Hand	The	quick	anyx goblin jumps over the lazy dwarf

	 Write with both hands 'A to Z^s in small letters.
Right Hand	abedetshijklmnopgasluvwæyz
Left Hand	ated efghijkimn opgralovwzyz

5. Signature with Left Hand

thegets

wayabat

Name*

Handwriting Sample collecti		145 warch Thesisin Ph.D. (Forefact Science) by in (Research Scholar) 2018
ONKOE B SONIDAR		20-04-2003
Male	Date of Admission	
	82	

Sex.	Male	Date of Admission	
School/ College Name*	M. P. Law college	Nature of Hand*	Right handed -
Writing Skill (Languages)	English	Best Writing Skill	
Class	BALLB-L	Level (Beginner/Lemer/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1.20.3.4.5.6.7.8.9.20.11.12.13.14.15,16.17.18,19.20
Left Hand	11+12_13,14,15,16,17, 18,19,20

2. Write with both hands 'The quick brown fox jumps over a lazy deg'

Right Hand	the	quick	promo	Fox	Inube	overa	lazy dog.
Left Hand	The	quick b	tionalty Feed of	-omy	source o	1029 80g	lazy dog.

3. Write with both hands 'The quick ony's gobiin jumps over the lazy dwarf'

Right Hand	The quick only goblin Jumps over the lazy-dwarf.
Left	The quick only goblin Jumps over the lazy-dwarf.
Hand	The quick one goblin in Jumps over the long dwarf

4. Write with both hands 'A to Z' in small letters. Right a.b. c.d. e. F.g. h. I. J. K. L. M. D. D. P. C. Y. S. F. U. V. W. X. J. Z. Hand Left A.b. C. d. e.f. g. h. I. J. K. L. M. D. P. C. Y. S. H. U. V. W. S. J. Z. Hand

- 5. Signature with Left Hand
- 6. Signature with Right Hand





	1	(Q	5	2	5		
S	AN	-	CV V	11	24	1	1	Ą	SY

Handwriting Sample collection for-Completion of Research Thesisin Ph.D. (Foreisic Science) by Mr. Siddiqui Mohd. Khaja Moinuddin (Research Scheiar) 2018

Name*	Radhe Chyon	DOB	
Sex*	m	Date of Admission	Jan 2022.
School/ College Name*		Nature of Hand*	write handed
Writing Skill (Languages)	Hindi, English	Best Writing Skill	
Class	AA-LLR	Level (Beginner/Lemer/Expert)	Learner

	1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)	
Right Hand	1,2,3,4,5,6,7,8,9,10	
Left Hand	11 12 13 14 15 16 17 18 18 20	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick	brown for jumps over a lary dog:
Left Hand	The quick	brown for jumps over a lary dag: taskets for jumps out a large dag?

Right Hand	"The quick any x goblin jumps over the layy due	af"
Left Hand	"The quick anyor godin junks ours, the basy higher	£

Right Hand	abcdefghijklinnopqkstuvpage
Left	abcdefgbajk(mnofgRatuvwayz

5. Signature with Left Hand

Radler Shyan.

Radhe Skyam

S	1	1000
		10

Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forefleic Science) by Mr. Siddiqui Mohd. Khaja Moinuddin (Research Scholar) 2018

Name*	Yashrai Toshi	DOB	
Sex*	Male	Date of Admission	
School/ College Name*	M.P. Low College	Nature of Hand*	Right hand
Writing Skill (Languages)	Murathi , Minds English	Best Writing Skill	
Class	8.0. LL 8 I	Level (Beginnen/Lemen/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right	1	2.	3	14		6	1	8	3	10
Hand Left	.10	12	13	244	15	16	17	13	1 1 5	20
Left	1	0	3	4	S	6	2	8	9	10
Hand	141	1,2	13	14	15	56	17	10	10	20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick brown Fox jumps over a large day
Left	The quick brown Fox jumps over a lazy day
Hand	The grick brown Fox jumps over a lazy day

3. Write with both hands 'The quick onys goblin jumps over the lazy dwarf'

Right Hand	The.	quikk	ongx	3 beblin	jumps	0ve	r the	Irsa	dwarf	
Left Hand	the	Operation	orby .	godin	jupops	okate.	the lat	23 1	dwarf VART	_

Right	4	B	C	0	E.	F	G-1	14	1	3	K.	1	12	N	0	٢	R	Ye.	-5
Hand	7	0	~	w	*	Y	2												
Left	0	8	ć.	D	E	F.	SH	1	17	X	~	in	0	20	5	20	P	5	

5. Signature with Left Hand

'Hashead'





SALGATIAS

Handwriting Sample collection/or-Completion of Research Thesisin Ph.D. (Forefice Science) by Mr. Siddiqui Mohd, Khuja Moinundin (Research Scholar) 2016

Name*	ANSHUL KUMAR	DOB	
Sex*	MALE	Date of Admission	
School/ College Name*	MANICHAND PANADE	Nature of Hand*	RIMA
Writing Skill (Languages)	ENGLISH	Best Writing Skill	
Class	BALLB (1)	Level (Beginner/Lemer/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	I.	J.	3	H	5	6	4	8	9	10	S.		20	
Left Hand	11	, 12	+)	3	14	13	5	16	17	F	18	19	20	

2. Write with both hands 'The quick brown for jumps over a lazy dog'

Right Hand	The	quick 1	Promu fox	Jampi	OVER	a lazy	deg	g -	
Left Hand	The	quoick	haon tox Norodin	Forx	Jumps	Quer	0.	logy	402

Right Hand	1.100		1.1		1 umpt	6	the.	1024	d war f
Left Hand	The,	OYDECH	k on	72 8	g ablick	+ Dantas	0 BID	(AZ)	x Autosf
	4. W	rite with bot	h hands 'A	to Z' in am	all letters.	/		1.1	
Right Hand	AR	CDE	6.111	2 Kr	all letters. MNOP				

5. Signature with Left Hand

Hand

KUNDON

And an .

Name*

		TAS Bearch Thesisin Ph.D. (Forefisic Science) by in (Research Scholur) 2018
Adita Bholke	DOB	28-10-2003.
male.	Dute of Admission	
to. D. Law	Nature of Hand*	(D) > 1 -

-

Sex*	male.	Dute of Admission	
School/ College Name*	th. p. law	Nature of Hand*	Right.
Writing Skill (Languages)	Graphish	Best Writing Skill	
Class	BALLES-I	Level (Beginner/Lemer/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Hand	12345678910.	
Left Hand	11 12 13 14 15 15 17 18 19 22.	

2. Write with both hands 'The quick brown for jumps over a lazy dog'

Right Hand	The quick	brown	for Jumps	over a lazy day.
Left Hand	The quick	brown	Fox-ZYMPS	over a way dog.

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The quick onto	Joblim	anmes	over the lazy	dwark.
Left Hand	The gaick on xx	Doplin	JUMRS	over the large	ducast.

4. Write with both hands 'A to Z' in small letters.

Right	adocdefghijklmnoparstuvwxyz.
Left	abed efghisklmmoparsturwayz. abed efghisklmmoparsturwayz.
Hand	

5. Signature with Left Hand

Adillian

Aditya .



algentas

Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forefaic Science) by Mr. Siddiqui Mohd. Khaja Moinuddin (Research Scholar) 2015

Name*	Labook Histoirik	DOB	1208002003
Sex*	Male	Date of Admission	
School/ College Name*	MR. Low allige	Nature of Hand*	Right.
Writing Skill (Languages)	English	Best Writing Skill	
Class	BALL P1 you	Level (Beginner/Lemen/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1.2.3,4,5,6,7,8,3,10.
Left Hand	(1) 12, B, 14, 15, 15, 18, -19, 20

2. Write with both hands 'The quick brown fox jumps over a lary dog'

Right Hand	The quick boown	for yours	and over a largy	day .
Left Hand	The quick boown. The quick boosers ,	60 Jamps	OVER & log	dog_

3. Write with both hands 'The quick onya goblin jumps over the lazy dwarf'

Right Hand	The quick only & gobilin jumps ower the large deport	
Left Hand	The quick any x godilin jumps ower the bagy deport The quick by juxy globin Jumps are the bag drawt	

4. Write with both hands 'A to Z' in small letters.

Hand	a. b. c. O. E. h. 3. h. 1, a. k. L.M.N. O. P. s. J. S. t. U. V. W.X.Y.Z
Left Hand	#AGDAFAHJAJLILD NO. P. SHEETONIN, X.12

5. Signature with Left Hand

Ad

Jame*	Ramell Singh Birds	ul Mohd. Khaja Mcinuddin DOB	19/09/2003
iex*	Male	Date of Admission	14/04/2003
ichool/ College Name	Manikchand Pahade	Nature of Hand*	Righty
Writing Skill Languages)	English	Best Writing Skill	
lass		Level (Beginner/Lemen/Expert)	
Right Hand	1 12 13 14 15 16 Write with both hands The g e quick brown b R quick brown f	uick brown fox jumps ove on Jacomps 0	er a lazy dog. Ner a lazy dog
3	Write with both hands 'The q	uick onyx goblin jumps o	ver the lazy dwarf'
Right Hand Th	e quick ongo go	blin Jumps o	ones the lazy dwarf

5. Signature with Left Hand

Re-Aŧ

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10		300	
E.		r 3	
- No.	_		
- 10		100	

GALGERTIAS

Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Foresis Science) by Mr. Siddiqui Mohd. Khaja Mohaddin (Research Scholar) 2015

Name*	Pactori Vuorni	DOB	12 APril 2003
Sex*	mule	Date of Admission	CE THE COLOR
School/ College Name*	mm.p. Jawsessed	Nature of Hand*	Right .
Writing Skill (Languages)	Koglish	Best Writing Skill	
Class	BAILLBIT	Level (Beginnor/Lerner/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	12345678910
Left Hand	11 12-13/4 1516 17 18 19 20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The	quick	brown	For	jumps	overci	ILLRY C	103'
Left Hand	740	, tikk	brothum	fex	JUNDE	t was	a 1924	det

Right			jumps		lerry cludof
the second se	4				Kary did by

Right Hand	ABCDEFG HIJK LMNOPORSTUUWXYZ	
Left	NUCLERADISHEMDORDERVENUN	

5. Signature with Left Hand

Auchor

					G	45.0
					GALGATI	48 N
		Handw	riting S	iample collec	tionfor-Completion of Resea pil Mohd, Khaja Moinuddin	urch Thesisin Ph.D. (Forefisic Science)
Name*	-	San	Cover.	Limar	DOB	(Research Scholar) 2016
Sex*		6	120	1	Date of Admission	
School/ College N	ame*	Mailt	linens	Tabolo	Nature of Hand*	Raht
Writing Si (Language			3	D.	Best Writing Skill	20
Class		BALL	s(1)	(Level (Beginner/Lemer/Expert)	
	1.	Write 1	to 20 (1	to 10 with R	ight Hand 11 to 20 With Lef	() Hand)
Right Hand						15 16 19 1819 20
Left Hand	12	34	5 6	2 89	10 11 12 13 11	9 15 16 17 18 19 28
	2.	Write w	ith both	hands 'The o	quick brown fox jumps ove	r a lazy dog'
Right Hand					for Jumps one	
Left	-71	0 1	Sel.	Link	Ch. Thomas In	es a lazz dege

1	Write with	both hands	The quick	onex onb	tin lumos ove	r the lazy dwarf"
	21 4 144 PT 0411	PART PROPERTY.	a set queres	out a good	ne jundin ove	1 100 100 100 100 100 100 100 100

Right Hand	The	TWICE	DINTY	Joblin	Tumps	over	the	lary.	Dwarf.
Left Hand	748	quick	06-50	, grilin	Jung	OLAR	THE	TRY	that

Right Hand	abelefghijklmnopgrstovway2.
Left Hand	Azedad ShijklmhopVESt www.xx2

5. Signature with Left Hand

Sutem	Aurope 5

-1	1. Constant	
- 200au	furran .	
0		



GALGOTIAS

Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forebic Science) by Mr. Siddiqui Mohd. Khaja Moinuddin (Research Scholar) 2018

Name*	Jashani Kalhe	DOB	
Sex*	Male	Date of Admission	
School/ College Name*	M. P. Law College	Nature of Hand*	Right hund
Writing Skill (Languages)	English	Best Writing Skill	1/
Class	BALL BI	Level (Beginner/Lemer/Expert)	

t. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right	1	- 2-	-3	٩.	5	6	÷.	8	9	(0
Hand	14	12	13	24	15	16	17	18	15	20
Left	1	2_	3	4	5	6	P	3	9	(0
Hand										20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick brown fox jumps over a lary day.	
Left Hand	The quick brown fox jumps over a lary day. The gift brown for firmt a come & day.	

3. Write with both hands 'The quick onyx gobdin jumps over the lazy dwarf'

Right	The quick once goblin jumps over the lazy dwarf.
Hand	The quick once goblin jumps over the lazy dwarf.
Left Hand	the quick only popping india one a the next almost.

Right	4. Write with both hands 'A to Z' in small letters. ABCDEFGHTJKLMNOPORSTUVWXYZ
Hand	abed et ghijklm no parstavwx yz

5. Signature with Left Hand

Bastrenz

Pashrai.

Name*	onyque shumer maske	ai Mohd. Khaja Moiauddin DOB	2- may	2003
Sex*	male	Date of Admission	23 Jan	2022
School/ College Name	M. P. Law. college	Nature of Hand*	Right H	
Writing Skill (Languages)	English	Best Writing Skill		
Class	B.A.LL.B	Level (Beginner/Lemer/Expert)		
1	Write 1 to 20 (1 to 10 with Ra	eht Hand 11 to 20 With Let	Hand)	
Right V Hand	, 2, 3, 4, 5,	6,7,8,9,	10.	
and the second se				
Left Hand	1.12, 13, 14, 15	, 16 , 17 , 1,	A 169,20	
Hand			18 28 25	
Hand 2	1, 12, 13, 14, 15 Write with both hands The q he quirk brown f	uick brown fox jumps ove	r a lazy dogʻ	dog.
Hand 2 Right 7 Hand	Write with both hands 'The q	uick brown fox jumps ove Fox jumps ove	ralazydog' Ya lazy	1000
Hand 2 Right 7 Hand Left 5 Hand 7	Write with both hands The q he quick brown f - Atomn quick brown	uick brown fox jumps ove Fox jumps ove to fix jumps or	ralazydog' Y a lazy vez a jazy	1000
Hand 2 Right 7 Hand Left % Hand 3	Write with both hands The q	uick brown fox jumps ove Fox Jum PS ove い チャス ノルー・アラ or uick onyx goblin jumps or	r a lazy dog' Y a lazy Ney a Jazy Per the lazy dwarf"	dayı
Hand 2 Right 7 Hand 4 Left 4 Hand 3 Right 4	Write with both hands The q he quick brown f - Arown quick brown Write with both hands The q The quick on yx	uick brown fox jumps ove Fox Jumps ove in Ax Jumps or uick onyx goblin jumps or goblin Jumps	ralazy dog' Y a lazy New a Jazy erthe lazy dwarf over the	dogi lazy dwar
Hand 2 Right 7 Hand 4 Left 5 Hand 3 Right 4 Hand 7 Left 7 Hand 7 Hand 7 A	Write with both hands The q he quick brown of the quick brown of Write with both hands The q The quick only of the quick only to the quick only to Write with both hands "A to Z	uick brown fox jumps ove Fox Jumps ove in Ax Jumps on uick onyx gobilin jumps or gobilin Jumps hin Jumps one fin small letters.	ralazydog' Y a lazy Nev a Jazy erthelazydwarf over the r the lazy	dogi lazy dwar dwarzy
Hand 2 Right 7 Hand Left % Hand 3 Right 4 Hand 7 Hand 4	Write with both hands The q he quick brown of the quick brown of Write with both hands The q The quick only of the quick only to the quick only to Write with both hands "A to Z	uick brown fox jumps ove Fox Jumps ove in Ax Jumps on uick onyx gobilin jumps or gobilin Jumps hin Jumps one fin small letters.	ralazydog' Y a lazy Nev a Jazy erthelazydwarf over the r the lazy	dogi lazy dwar dwarzy
Hand 2 Right 7 Hand 4 Left 5 Hand 3 Right 4 Hand 7 Left 7 Hand 4 Right 4 Hand 4 Right 4 Hand 4	Write with both hands The q he quick brown of the quick brown Write with both hands The q The quick only of the quick only gob	uick brown fox jumps ove Fox Jumps ove in Ax Jumps or uick onyx gobilin jumps or gobilin Jumps him Jumps one fin small letters. H, F, J, 15, L, M	ralazy dog' Y a lazy New a lazy erthe lazy dwarf over the r the lazy n the lazy	dog: lazy dwar dwarge Q, Ris, T,

1

5. Signature with Left Hand

Dorge

Araster Araster

	Handwriting Sample collect Mr. Sicdiq	GALGERTIA GALGERTIA ionfor-Completion of Researc ai Mohd. Khaja Moinuddin (j	th Thesisin Ph.D. (Forenic Science) by
Name*	MORE PRAMON AShak		1410312003
Sex ⁺	maile	Date of Admission	
School/ College Name*	M. P. Law collage	Nature of Hand*	Right -
Writing Skill (Languages)	ENGLISH	Best Writing Skill	
Class	BALLO -I	Level (Beginner/Lemen/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right	2,2,3,4,5,6,7,8,9,20 \$1,42,73 14 1526 17 2019 -0
Left	11 1- 72 13 13 13 17 38 1 Pm
Hand	whether to the state of the

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick brown fox Jumps over a 1224 dog.
Left	The quick brown fox Jumps over a 1224 dog.
Hand	The grade brown TBA JUMAS OL OF a REDA BOD

	3. Write with	both hands	'The quick onys goblin jumps over the lazy dwarf'
Right Hand	The AUICK	0.0X4	goblic Jomes over the lazy of dwarf.
Left Hand	The good	ones	goblin jumps arathe lis clearly

	4. Write with both hands 'A to Z' in small letters.	
Right Hand	W.b.C.d.B. f. G. H. I, J.K. L.M.D. C. P. 4. HS. t. O. U. W.X. 4,Z	
Left Hand	age Eperfection Like and PAR a June, XIVA	

5. Signature with Left Hand

prace	
1	

Name*

GALOPET Handwriting Sample collectionfor-Completion of Reser	(1) 27 Strengther and the strength of the s
Mr. Siddiqui Mohd. Khaja Moimaddin	(Research Scholar) 2018
Rugy Madhukas Khasat DOB	26-10-1336
More Date of Admission	

Sex*	Mare	Date of Admission	
School/ College Name*	M.P. Colleg-e	Nature of Hand*	Riah Hand
Writing Skill (Languages)		Best Writing Skill	
Class	BA. (.L.B - 1	Level (Beginner/Lemer/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	12345679910	
Left Hand	1112 13 141516 17 18 1320	226
riano		

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right	The QUICK	prown	fox jumps	aver	a lazy dog
Left Hand	the quick	695600	-fig jumps	over a	a lazy dog lazy dog

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right	The	QUICK	ONYX	Boblin	jumps	OVER	the	1927 dwaf
Left	the	wick	onlyx	godin	jumps o	ves th	e 192	y dwarf

4. Write with both hands 'A to Z' in small letters.

Right	A. b. c. d. e. f. g. h. i j. k. Imm op 9 + 5+ U V W X YZ
Hand	abc. d. e. f. g. h. i j. k. Imm op 9 + 5+ U V W X YZ
Left Hand	are defgh iskimmore asturwayz

5. Signature with Left Hand

6. Signature with Right Hand-

Anthel

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Unartize	



GALGATIAS

Handwriting Sample collection for-Completion of Research Thesisin Ph.D. (Fore size Science) by Mr. Siddiqui Mohd. Knuja Moinuddin (Research Scholar) 2018

Name*	Rohit Kalyan Autode	DOB	27. actorphy . 2003
Sex*	Male	Date of Admission	
School/ College Name*	M.P Law college	Nature of Harid*	Right
Writing Skill (Languages)	English	Best Writing Skill	
Class	B-A-LEB 25t Year	Level (Beginner/Lemeo/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1,2,3,4,5,6,7,8,9,10
Left Hand	11/2 13,14,15,16,17, 18,19,20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	'The quick beaun for jumps over a lary dag!
Left	The quick brown for jumps over a lary dog.
Hand	The quick brown for jumps over a lary dog.

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The	quick only goblin jumps over the lazy dwarf. The only goblin jumps over the lazy dwarf.
Left Hand	The	grick once gablin jumps over the lazy dward?

4. Write with both hands 'A to Z' in small letters.

Right	a, b, c, d, e, F, g, h, i, g, k, i, m, m, a, p, q, r, s, t, u, v, w, x, y, z
Hand	a, b, c, d, e, f, g, h, i, g, k, i, m, n, a, p, q, r, s, t, u, v, w, ×, y, z.
Left Hand	a, b, c, a, e, f, s, b, j, s, r, l, m, n, e, p, q, r, s, s, u, v, w, ×, y, 2.

5. Signature with Left Hand

Quelandes

Potente

Name*

		arch Thesisin Ph.D. (Forefisic Science) by
Mr. Sidda	pal Mohd. Khaja Moinuddin	(Research Schalar) 2018
Ashir DOWNE	DOB	20-12-2001
	Date of Admission	

windowski lines internet in the	- DILLE COLORD		2001
Sex*	male	Date of Admission	
School/ College Name*	m.p. 1000. college	Nature of Hand*	Left and eight.
Writing Skill (Languages)		Best Writing Skill	
Class	B-A-LLB	Level (Beginner/Lemer/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1.2, 3, 4, 5, 4, 7, 8, 9, 10, 11, 12, 12, 14, 15, 16, 17, 18, 19, 20.
Left Hand	16121316151615161920.#

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Hand	75	e qui	che b	8000	For	jumps	aver	ø	lazy	dag ;
Left Hand	The	机大大	bencie	S Fox	VAMPS	JUMPS	lazy o	100	42	

3.	Write with both hands	The quick onyx goblin	jumps over the lazy dwarf*	
	122			

Right Hand	'The quick	oriya go	blin jumps	oves the	lazy droff
Left Hand	The guick o	nyx qublin	10mps gree	a leav	ofwaret!

	 Write with both hands 'A to Z' in small letters.
Right Hand	A, B, C, D, E, F, G, H, J, J K, L, M, N & PO, D & JUV, W, X J, Z
Left Hand	abovefahisktmonopgertyvwxy2

S. Signature with Left Hand

Sugar

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E.	400	fin	
e.)	4C	Ju	



Handwriting Sample collection for-Completion of Research Thesisin Ph.D. (Foreficie Science) by Mr. Siddiqui Mohd. Khaja Moinuddin (Research Scholar) 2018

Name*	Galange Padme	DOB	01/12/2003
Sex*	Male	Date of Admission	
School/ College Name*	M.P. Law College	Noture of Hand*	Right Hand
Writing Skill (Langaages)	English	Best Writing Skill	
Class	BA.LLB .I	Level (Brginner/Lemer/Expert)	

1. Write I to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	12345678310	
Left Hand	12345678310	

2. Write with both hands "The quick brown fex jumps over a lazy dog"

Right Hand	The	quick	e bravon	\$0	ix Jun	1PS	ove	ra	lazy	dog
Left Hand	The	quick	i birawan birawan s	Fox	NUMRS	CNEX	e de	lany	des)	0

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The c	luick	onyx	Joblin	Jumps	OVET	the lazy dwas	5
Left Hand							anay deals	

Right Hand Left Hand	a	6	47	d	e	t	3	h	١	1	k1	m	n	Ċ	P	00	8	5-	r u ·
Left Hand	a.	60	: 8	ef	°.	61	jy	1 m	ià,	a.f	92	51	u	v	i.e	KX Y	2		

5. Signature with Left Hand

gudne

Cashina

Name*		1115/212	100.00			and the state of t	d, Khaja	Moim	iddin ()	Research Sch		
Sex*	_	Som		Des	1 of	DOB	d'Admi	and the second		04-1	1ay-2003	
ichool/		Fem			_		e of Har					
College N	lame*	11an Pahor				Naturi	c of Har	10.4		Della		
Writing S	and and and the state of a hole of the	1000			acde	Best V	Vriting 3	Sikill.		Kight		
for the second data in second data	(23	Eng	hish	_					-	Right		
Langunges) Tase		BA	LLE	L-J		Level (Benir	wei/Lei	mer/F-v	nert)	1		
	100	Studies.	1.000	See.	-		anan					
	1.	Write 1	to 20 (1 to 10	with Ri	ight Har	ul 11 to	20 Wit	th Left	Hand)		
Right Hand	1	2	3	4	5	6	7	8	3	10		
Left Hand	U	12	13	15	15	1e	17	19	13	20		
									~~~~			
Right	2	Write w	sith bot	h hànds	"The q	ulci, br	torina Ba	z janut	is over	a lazy dog*		
Hand	TT	-	o k	E. La	10	Contract of	0.000	2213		- 1e	zy dog.	
Left	1	· fo	uc n	010	011	i D.ac.	Jemo	PS:	Ovu	G. 14	27 009	
Hand	1	6 991	CK	breu	1. 1	DR 9	anas	010	20.5	10.24	dag	
							. She			and see See	10 M	
Right	3.	Write w	ith bot	h handi	They	puich or	iya gob	lia jun	illis no t	r the lazy d	warf	
		17 20	9.0	2512	222	STUN	0. 0		01110	S	Level.	
	11	4 90	Lite	on	Ju	300	un j	um	15 1	Duca Th	H alworf.	
Hand	1.000		1CK	Orla H	as.	all n	Aino	5 0	199	the du	Avor	
Hand	1000	15 44		-	17		J.					
Hand Left	1000	42 94		V.								
Hand Left Hand	75	Writew		V .	'A to )	C' in sm	all lette	15.	_			
Hand Left Hand Right	4	Writew	ith bot	h hands								
Hand Left Hand Right Hand	4	Writew	ith bot	h hands					3.5	, t. u. v.	W.X.Y.Z	
Hand Left Hand Right	4 4.	Write w	in boi F. g	h hands	j. k.	1.m	n.o.	P-2-		, <b>t , u, v</b> ,	.w.x.J.z	

5. Signature with Left Hand

-	-	-	
19	UNA PLOS		8



Name®		Vaibba	w.G.	the second second second second	and the set of the second second	OB	alla mos	A standard bar and stand	search Sch 30 M	lay 2003
Sex.4			ale	Contrad to		ate of A	dmission		10 1	and wood
Scheel/ College N	arres #			. 11-		sture of	Hand*		0.11	17
Writing S	kill	M.P.		1.00	UB	est Writi	ng Skill		Right	
Language Theor	e)	Englis	h/M	lans 1		evel	Western V	-	Righ	t
	_	BA	UB-	TH	- (I		Lemer/E	spert)	Begi	nners
	4	Write 1 to		0		Hand 1	1 10 20 10	54. t .n 14	0	
Right	1.1.1	1.3	161				1.002		1.1.2.5	. Dec
Hand	7	2	3	4	5	6	म	8	9	10
Left Hand	11	12	(3	14	15	16	17	18	19	23
land eft land Right	3.		quid de l	k htsi ands "T	boow h f	h brown n ax ji t onys j	o for jum Fox impos poblin ju	inter over a jum DNG y	lazy dog* PS 0 G (d) the lazy dv	vers a lazy dag zy dag
Hand Left Hand Right Hand Left	3.	The le gul	quid de l	k htsi ands "T	boow h f	h brows n ax je k anys je	o fos jun Fax unpes pobilin jun	numba antes inno inno inno inno inno inno inno inn	luzy dog* PS O G (d) the lazy dv	vez a lazy day zy dag
Hand Left Hand Right Hand Left	3. The	The Re <b>gul</b> Write wit	quici ide d h both h ck k o	k bits ands "T ony ng/x	boow n f bequie go	h bronn n ax ji h anys galali Iblits	o fos jum Fox impos poblic ju n juar	numba antes inno inno inno inno inno inno inno inn	luzy dog* PS O G (d) the lazy dv	vers a lazy day zy dag arr zs the lawy dwa
Right Hand Left Hand Left Hand Left Hand Left Hand	3. The The 4.	The Write with P quive Quite Write with	quid ide 1 h both h ck h both h c, d	ony mds T ony mds A	расы р f рс quie ух ( ga roz' i f , g	h brown n ax je h anys je	n jun fax impes n jun jun etters	ps over a jum over pumps nops nops c, l, r	lazy dog* PS O C O LoC the lazy dv 8 ONE S ONE	vers a lazy dag zy dag zer the lawy dwa he latty thereof he latty thereof

(Languages) Class

			1A.S. 17.S. earch Thesisin Ph.D. (Forefisic Science) by in (Research Scholar) 2018
Name*	Priya S. Bhusari	The second second with the second	in (New Jennie) 2016
Sex4	Female	Dute of Admission	
School/ College Name*		Nature of Hand*	Right hand.
Writing Skill		Best Writing Skill	2

	(Beginner/Lerner/Expert)	
7.0	La manager a company a company and	6.17

Level

-												(ith Left Hand)	
Right Hand	1	2	5	4	5	6	7	8	9	10			
Left Hand	11	1	2	13	14	15	; 1	6	17	18	19	20	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick broown fox jumps over a lazy dog	
Left Hand	The quick brown for jumps over a loczy dog	

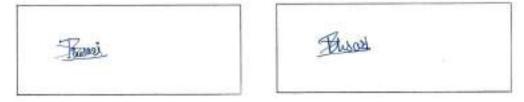
3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The quick	onyou	goblin	jumps	OVER	the	lazy	drawrf
Left Hand	The quick The quick	cm/#	goblin	jumps	gver	the	lacy	decumation

4. Write with both hands 'A to Z* in small letters.

Hand	A	B	С	D	EFGHIJKLMNOPQRSTUVWXYZ	
Left Hand	A	8	сI	E	FG HIJKLMNOGRSZUVWXYZ	

5. Signature with Left Hand





GALGATIAS

Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forefisic Science) by Mr. Siddiqui Mohd. Khaja Moinuddin (Research Scholar) 2018

Name*	Natalha Archa	DOB	
Sex*	Female	Date of Admission	
School/ College Name*	Manifectand Phade	Nature of Hand*	Right hand.
Writing Skill (Languages)	English	Best Writing Skill	
Class	BALLB 1st year	Level (Beginner/Lemer/Expert)	

L. Write 1 to 20 (I to 10 with Right Hand 11 to 20 With Left Hand)

Right	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20
Left	12.9656789p1112, 191915161718 1920
Hand	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right	The quick brown for jumps over a lazy dag. The quick to nonerably jumps on prive a back day.	
Left	Therauick brower that jungers a now a herey day.	
Hand		

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right	The quick only goblin jumps over the lazy dwarf.
Left	The quick only rabbin jumps over the lazy dwarf. The quick only good in jumps over the lazy driver f
Hand	and a second reaction of the second

4. Write with both hands 'A to Z' in small letters.

Right	A.B.C. D.E.F. Q.H.I.J.F.K.L.MINIOIP,Q.R.S.T. U.V. WXYZ.	
Hand	NOCOR F. G. M.J. THITH PRPARS, T. YV W. M. S.Z.	
Hand	Lindblad . Labora . La La La La Casta da La La Casta .	
France		

5. Signature with Left Hand

1 blest	Autoular
*	

Name*		ul Mohd. Khaja Molnuddin	
Sex*	Shweta Runwal	DOB Date of Admission	
School/	Female		
ollege Name*	Manikchand phade	Nature of Hand*	Right hand
Vriting Skill Languages)	English	Best Writing Skill	
Class	BA. LLB Isters	Level (Beginner/Lerner/Expert)	
1	Write 1 to 20 (1 to 10 with Ri	ght Hand 11 to 20 With Lef	t Hand)
Right 1	12,3,4,5,6,7	8,9,10,11,1	2,13,14,15,16,17,18,19
Hand			
Left	0, TAP 7 7 8	9 10 11 10 1	- 14 15 10 10 10 14
Hand		5 2 9 14/1	3-14-15-15,17,18,19
	Write with both hands "The a	uick brown fox jumos ove	r a lazy dog'
2 Right We	Write with both hands "The a	uick brown fox jumos ove	r a lazy dog'
2 Right Hand	Write with both hands 'The quil	uick brown fox jumps ove 'cle brotwon Fa'	ralazydog' x jumps over a lazydo
2 Right We	Write with both hands "The a	uick brown fox jumps ove 'cle brotwon Fa'	r a lazy dog'
2 Right Hand Left TA Hand 3	Write with both hends "The quit" rite we The quit with both hends "The q	uick brown tox jumps ove icke bordwan for Sword Orway i uick onyx goblin jumps ov	r a bazy dog' x jumps over a lazydo a. hazz dog ver the bazy dwart
2 Right Hand Left TA Hand 3 Right TH	Write with both hends "The quit" rite we The quit with both hends "The q	uick brown tos jumps ove "che brodwan fot = Jumil Orwan i	r a bazy dog' x jumps over a lazydo a. hazz dog ver the bazy dwart
Right Hand Left Hand Mand Right Hand	Write with both hands The quite with both hands The Quite Quite Brown Agentic Write with both hands The quite Quite Only	uick brown tox jumps ove icke bordwan for Sword Orway i uick onyx goblin jumps ov	r a lazy dog' * jumps over a lazydo o. hzzz dog_ rer the lazy dwart ips over the lazy dwart
Right Hand Left The Hand Mand Right The Hand Left The	Write with both hands The qui rifte but The Qui valid brown A Write with both hands The q Ne Quick Only valid Only	uick brown tox jumps ove cle brotwon for s Swrup Erver uick onyx goblin jumps ov X goblin jumps o Joblin jumps o	r a lazy dog' * jumps over a lazydo o. hzzz dog_ rer the lazy dwart ips over the lazy dwart
2 Right Hand Left 7A Hand 3 Right 71 Hand Left Ter Hand	Write with both hands The quite when we have The quite when the both hands The q Write with both hands The q a wick only guite only Write with both hands "A to 2 b c d e f g	uick brown tox jumps ove Ce brown for jumps over uick onyx goblin jumps over X goblin jumps over Joblin jumps over Joblin jumps over this mail letters. This k I m	r a lazy dog' x jumps over a lazydo a. hazy dog ver the lazy dwart ips over the lazy dwart iver the lazy dwart





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and l	-	-	Sugar-

Handwriting Sample collection for-Completion of Research Thesisin Ph.D. (Forefic Science) by Mr. Siddiqui Mohd. Khaja Moinuddin (Research Scholar) 2018

Name*	Shouti Pimpankhute	DOB	23.02-2004
Sex#	female	Dote of Admission	
School/ College Name*	manikchand Paked	Nature of Hand*	Right
Writing Skill (Languages)		Best Writing Skill	
Class	BALLB 1st your	Level (Beginner/Lemer/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1, 2, 3, 4, 5, 6, 7,8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19,20
Left Hand	11, 12,13,14,15,15,17,18, (3,20.

2. Write with both hands 'The quick brown for jumps over a lazy dog'

Right Hand	The	quick	prown	Fox jumps over a lazy dog'
Left Hand	The	quick	brown	Fox jumps over a lazy dog' Fox jumps over a lazy dog

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The	Quick	onyx	goblin	jump	s oven	the	lazy	dwarf
Left Hand	The	quick	SMA	goblin,	jumps	allert	60 1	ezy.	Awart

4. Write with both hands 'A to Z' in small letters.

Right	0	P	C	q	6	£	113	n I	3	K	L	m	n	0	9	Q.J	x	34	U	v u	X
Hand	3	Z	à	al	-0	s	9	KJ.	7	K	L	m	n	0	P	23	F	SE	14	5	4
Right Hand Left Hand	8	y	2	3	C	1	æ		de.	1.7	S.,	and a	10	-	0	00	6 6	× 5	100		• 0

5. Signature with Left Hard

Name*

	GALGORT GALGORT lectionfor-Completion of Res digui Mohd, Khaja Moinudd	earch Thesisin Ph.D. (Forensic Science) by
Peacher Broffane	DOB	04/04/2004
Female	Date of Admission	23/12/21

Sex*	Female	Date of Admission	23/12/21
School/ College Name*	M.p. Law College ,	Nature of Hand*	Right hand
Writing Skill (Languages)	d Egglesh	Best Writing Skill	-
Class	2-148-I	Level (Beginnen/Lemen/Expert)	Begnines

Winter # 44 941 /1	to Fill socials Wilsohn 1	Same \$ \$ 5 day 200 Stilles	T add \$1 and \$1
 WHIG 1 10 20 (1	to 10 with Right (	Hand 11 to 20 With	Len Habe)

Right Hand	1. 2.3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20	
Left Hand	1,2,3,4,5,6,7,8,2,10,11,12,15,14,15,(6,17,18,19,20.	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick brown for jumps over a lazy dogo	
Left Hand	"The quilty-break Fizz Junps alor a loss day	

## 3. Write with both hands 'The quick onys goblin jumps over the lazy dwarf'

Right Hand	The gatch on you gobirn gumps over the lary durous "	_
Left Hand	The patch anger gablin Jumps over the larged wood " The patch anger gablin Frazies or at the very durant"	

	4. Write with both hands 'A to Z' in small letters.
Right Hand	A & CDEF G #IJKLMNOPORS TUNHXY2
Left Hand	ABOREFG HEJTKLIMNOPRESTUNISCHZ

5. Signature with Left Hand

Back

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0	5	
GAL	ini i	145

Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forence Science) by Mr. Siddiqul Mohd, Khaja Moinuddm (Research Scholar) 2018

Name*	Siddhi A. Nagarkar	DOB	13-10-2	003
Sex*	Female	Date of Admission	22.12.	
School/ College Name*		Nature of Hand*	Righty	
Writing Skill (Languages)	English	Best Writing Skill	English	Marathi
Class	B.A. LLB (Ist you)	Level (Beginner/Lemer/Eusers)	Learn	rez

	1.	Write 1	to 20 (1	to 10	with :	Right	Hand (	to 20	With Left	Hand)	
oht	1.2		10	4	E	1		-	0	1.00	

Right Hand	1	2	3	4	5	6	7	8	9	10		
Left Hand	21	12	13	14		15	16		17	18	12	20

2. Write with both hands 'Thu quick brown fox jumps over a lazy dog'

Right Hand	The	quick	brown	fox	jumps over a lary deg.
Left Hand	The	quick.	brown	for	jumps over a lary deg. Jumps over a lary deg.

	3. Wri	te with both h	ands The q	wick onyx gol	ilin jumps ov	er the laz	y dwarf?	(
Right Hand	The	quick	any×	goblin	jumps	oves	the	lary dwarf.
								lazy ducat.

Right Hand	a	b	ε	d	e	f	gh	13	K	l	m	n	٥P	9	r	34	U	W	*	9 3	£.
Left Harid	a	h	¢.	d	æ.	£	9 1	14	F	1	P)	n	0 0	9	8	S.	t i	V	4	r y	2

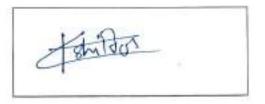
5. Signature with Left Hand

29,07:2022

Yau 29.04.2022

Name*		Kshitij Pandit	ul Mohd, Khaja Moinuddin ( DO8	05 A Phil 2004
Sex*	-	Male.	Date of Admission	24 December 2021
School/ College Nat		M.P. Low College	Nature of Hand*	Right Mand.
Writing Ski (Languages			Best Writing Skill	
Class		BALLB-I	Level (Beginner/Lemer/Expert)	
	ĩ.,	Write 1 to 20 (1 to 10 with R	light Hand 11 to 20 With Left	Hand)
Right Hand	1	2 3	4 5 6	78910
Left Hand	17	12 13	14 10 161	118 19 20
	2,	Write with both hands "The	quick brown fox jumps over	a lazy dogʻ
Right Hand	Th	e quick brown	For j'umps on	ion a large dog
Left Hand	T	R GRACK Brooks	to for jomp	UNOr a Togle da
	3.	Write with both hands "The	quick onyx goblin jumps ov	er the lazy dwarf
Right Hand	Th	e quick ongu	goblin jumps	is via the lass devou
Left Hand	1	the quiet is	nox dohted	ing and los
10000	4.	Write with both hands 'A to	Z ⁺ in small letters.	1
	a	bedefahij	Kinnopars	turways
Right Hand	+04	90 U	4	00

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	100
-	100

SALGATIAS

Handwriting Sample collection for-Completion of Research Thesisin Ph.D. (Forefisic Science) by Mr. Siddigui Mohd, Khaja Moinuddin (Research Scholar) 2018

Name*	Swatcintza Soncine	DOB	2207-20=2
Sex*	male	Dute of Admission	
School/ College Name*	M. P. Iaw college.	Nature of Hand*	Right hard
Writing Skill (Languages)	1	Best Writing Skill	
Class		Level (Beginner/Lemer/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right	1	2	3	4	5	6	7	89	10
Left	11	12	13	1	4	٢s	16	12	10 20
Hand		_							

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand							a 1024 deg
Left Hand	The	QUICE	6×0wirz	+07	Sants	aye	a 10 24 des

	3. Write	e with both ha	nds 'The qui	ick onyx gobl	in jumps over	r the hazy d	learf'	
Right Hand								1927 dog.
Left Hand	The	quick	allyt	Jobla	1 JAWAR	- ave	53 H	6 100hang

	-							HLMNOPØRSTWXYZ.
A	ß	Ç-	P	B	FG	A	Vi	KINNOPORSTWXXX.

5. Signature with Left Hand

6. Signature with Right Hand

AN-

Hand

20t

	Handwriting Sample collect	GALQATIA ionfor-Completion of Resear	rŞ vh Thesisin Ph.D. (Forensis: Sci
Name*	RUDY GROATE	ul Moltd. Kitağa Melmoddin ( DOB	Research Scholar) 2018 2.1 - 0'4 - 1 9 9 9
Sex*	fimale	Date of Admission	21-01-2022
School/ College Namr*	M.P. Laws collage	Nature of Hand*	Right
Writing Skill (Languages)	English	Best Writing Skill	
Class	B.A.LLB 14car	Level (Beginner/Lemer/Expert)	
Right L Hand Left ft	Write 1 to 20 (1 to 10 with Ri 2 3 4 5	(Beginner/Lemer/Espert) ght Hand 11 to 20 With Left G + 8 9 }	Hand) O

2. Write with both hands "The quick brown for jumps over a lazy dog"

Right Hand	I'The	quick	prown	fox tumps	over, a	Jary	dog'.
Left Hand	THO	- quik	bound	n-for tames	overa	Lozy d	19

	3. 3	Write with be	th hands "The	quick onys go	blin jumps or	ver the lazy	dwarf*	
Right Hand	the	quick	owne	Joblin	Arresta	over.	the	kary denan
Left Hand	era.	drukk	awit	go 2 [ 127 ]	sound a	th bro	he la	ac dwast

Right Hand	A	8	C	BG	ER	F T	7	H	1 5	KX	F.	M	N	0	P
Left Hand	1		50	0	6.0	E	5	H.	53	t	5	L.X	57	7	N

5. Signature with Left Hand

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Thall	10-	

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Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forefric Science) by Mr. Siddiqui Mohd. Khaja Moinuddin (Research Scholar) 2018

Name*	Nichi Nay Fadnis	DOB	27/10/2003
Sex*	kemale	Date of Admission	22 December 2021
School/ College Name*	Manikchond Pahade Law college	Nature of Hand*	Right Hand
Writing Skill (Languages)	English	Best Writing Skill	
Class	B.A.LL.B.T	Level (Beginner/Lemer/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1,2,3,4,5,6,7,8,9,10.	
Left Hand	1,2,3,4,5,6,9,8,9,10.	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The	quick	brown	fox j	jumps	OVER	a lazy	dog '
Left Hand	The 94	ick bro	wo box	jumps	OVER	0. 102	dog'	

3. Write with both hands 'The quick onyx goblin Jumps over the lazy dwarf'

Right Hand	'The	quick	onyx	goblin	jumps	over the lazy dward'
Left Hand	The	guiok or	ity god	in jumps	over	over the lazy dword'

	A, B, C, D, E, F, G, H, T, J, K, L, M, N, O, P, Q, R, S, T, V, V, W, X, Y, Z
a	a, b, c, d, e, f, g, b, i, j, k, 1, m, n, o, f, g, r, S, t, u, v, w, x, y, 2

5. Signature with Left Hand

6. Signature with Right Hand

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10	dano,	

Nodris

		Mr. Siddiqu	cofio-Completion of Research ai Mohd. Khaja Moinuddin (J	th Thesisin Ph.D. (Foredule Science) b Research Scholar; 2016
Name*		Utkansha	DOB	7/11/2002
Sex*	-	Female	Date of Admission	C - SIMA IN ANALYSIS CONSTRUCTION
Schoul/ College N	ame*	M.P. Law Loyage Autangabad	Nature of Hard*	Right
Writing S (Lanpuag			Best Writing Skill	
Class		B.A.LL.B I year	Level (Beginner/Lemer/Expert)	
Right Hand	1,	Write 1 to 20 (1 to 10 with Ri 2, 3,4,5,6,7, 2, 13, (4,15,6,7,	8, 9, 10, 11, 121	Hand) 13 : 14; 15; 16; 17; 18; 19
Left Hand	-			a law dort
Hand	2.	Write with both hands "The q	uick brown fox jumps over	u nyà nuế
E120200	And Street and	Write with both hands 'The q = quick brown		handle of the second

Right Hand	The quick on you	goblimjumps	oves	e the	lazy	dwin
Left Hand	The quick Days	goblin jumps 1	over	the lo	izy d	wath

Diske							to Z' in s				21120	And the second state of the second state of the second
Hand	a	b	c	d	et	gh	15	K	19	nr	10	PqZSturwayz
Left Hand	9	Ь	C	0	=(	sah	igk	ch	W)	10	\$	g-esturw xyz

- 5. Signature with Left Hand
- 6. Signature with Right Hand

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Geikwood

		ui Mohd. Khaja Moinuddin	rch Thesisin Ph.D. (Foredisic Science) by
Name*	Katkan Tejaswini Bap	and the second statement of the se	21/11/2002
Sex*	Female	Date of Admission	22 December 2021
School/ College Name*	Manikchand Pahade	Nature of Hand*	Right
Writing Skill (Languages)	English	Best Writing Skill	din
Class	BAILBE	Level (Beginner/Lemen/Expert)	
Left	£1,3\$, 11, 12, 13, 14	6,7,8,9,	11
Left Hand	the sheet excited any to	.15.16, 17.18.1	g,20
Left Hand #	22 , 33 , 11, 12 , 13 , 14 Write with both hands 'The q	.15 . 16 , 17 . 18 . 13	G ' 70 B ' 70
Left Hand #	æ, <b>æ, II, 12, 1</b> 3, 14	.15,16,17,18,11 wick brown fox jumps ove or jumps OVer (	g, 20 ralaxy dog" a lazy dog"
Left Hand Right Hand Left Hand	H, 33, 11, 12, 13, 14 Write with both hands The g ne. quick brown for	.15.16, 17.18.15 wick brown fox jumps over or jumps Over ( X jumps Over (	g, 20 ralaxy dog" a lazy dog" a lazy dog"
Left Hand Right Hand Left Hand	H, H, 12, 13, 14 Write with both hands They he quick brown for he quick brown for he quick brown for Write with both hands 'They	.15.16, 17.18.15 wick brown fox jumps over or jumps OVer Sjumps OVer or jumps Over uick onyx goblin jumps ov	g, 20 ralaxy dog" a lazy dog" a lazy dog"

Right Hand	abcdefghijk Lmnopq=stovw
Left	abcdefghijkLmnopgstvvwxyz
Hand	AbcdefghijkLmnopgstvvwxyz

5. Signature with Left Hand

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6.17 m	
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ionfor-Completion of Research Thesisin Ph D	Tores

Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Fore Mr. Siddiqui Mohd. Khaja Moinuddin (Research Scholar) 2018 isic Science) by

Name*	Valbhauttbaudattor	DOB	
Sex*	Female	Date of Admission	
School/ College Name*	M.P. Law College	Nature of Hand*	Right
Writing Skill (Languages)	English	Best Writing Skill	
Class	B.A.LL-B.I	Level (Beginner/Lemer/Expert)	

	1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)
Right Hand	1234567891011121314151617181920
Left Hand	1234507997511201415161782920

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

	The quick brown fox jumps over a lazy dag
Left Hand	The quick brown For jumps Were has day

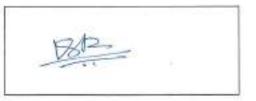
3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

1	11			
			and some star	lazy dworf
2410 KONDE	antino	Tub 201	(N/55)	the las non month
	94FROND	guitteronyar golline	With any golline Jun 14	and stand august and all show and

	<ol><li>Write with both hands 'A to Z' in small letters.</li></ol>	
Right	a bcdeFghijkimno popustuvwzyz	
Hand	3 4 11	
Left	abode 5 ghick monopolation and	
Hand	amore and country bolow address address	_

5. Signature with Left Hand







GALGATIAS

Handwriting Sample collection for-Completion of Research Thesisin Ph.D. (Forefisic Science) by Mr. Siddiqui Mohd. Khaja Moimaddin (Research Scholar) 2018

Name*	Radhika Kamegh	DOB	
Sex*	Female	Date of Admission	
School/ College Name*	Manik Chand Palin de	Nature of Hand*	Right
Writing Skill (Languages)	English	Best Writing Skill	
Class	B.AMB-I	Level (Beginner/Lemer/Espert)	

## 1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	12	3	45	6	Ŧ	8	9	30	11	12	13	14	15	16	17	18	19	20
Hand	1820							200									1177	

1.100.04			
Left Hand	11 12 13 14 15 16	17-18 11-20	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick brown for jumps over a lazy dog	
Left Hand	The guide becaut for finage cause a large day.	

3. Write with both hands "The quick onys goblin jumps over the lazy dwarf"

Right	The quick arrive another itemps much the locu dward	
Hand	we brid ough domin and anos we wed monop	
Left	The quick only a gallin jumps over the lazy dward The guick organ Ballin jumps (DUC). Here lazy dward	

4. Write with both hands "A to Z' in small letters. Right Obcdefghijkimnopgrstuuwayz Hand Abid=fghijkimnopgrstuwayz Hand Abid=fghijkimnopgrstumaja

5. Signature with Left Hand

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Falment.

	Handwriting Sample collect	GALGOTIA GALGOTIA ionfor-Completion of Resear	-S ch Thesisin Ph.D. (Fore∰ic Science) by
Name*	Mr. Siddig Deshno Join	ul Mohd. Khaja Meimaddin ( DOB	Research Scholar) 2018
Sex*	Female	Date of Admission	
School/ College Name*	M.P. Law College	Nature of Hand*	Right hunded
Writing Skill Languages)	English	Best Writing Skill	
Class	BALLB - Is Year	Level (Beginner/Lemer/Expert)	lerner
Hana	12 13 14 15 16		· · · · · · · · · · · · · · · · · · ·
Right Th	Write with both hands "The g e quick brown fo	r jumps over a	lazy dag
Left Hand Th	ie with brown:	for jumps over	fictor forma in
3.	Write with both hands 'The q	uick onyx goblin jumps ove	er the lazy dwarf'
			the lazy dwarf.
Left Hand	he quick only a	lopjew fromto and	sor the largy dwast

4. Write with both hands 'A to Z' in small letters.

Right Hand	abcdefghijklmnopgerstuvwxyz
Left Hand	abcdefghijkimnoperstuvwayz abcdefghijkimnoperstuvwayz

- 5. Signature with Left Hand
- 6. Signature with Right Hand





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SALGATIAS

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Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forefisic Science) by Mr. Siddiqui Mohd. Khaja Moinuddin (Research Scholar) 2018

Name*	Kumari Amisha	DOB	27/02/2003
Sex*	Temale.	Date of Admission	24/12/2021
School/ College Name*	Manikchand Oahade	Nature of Hand*	Right hand
Writing Skill (Languages)	English	Best Writing Skill	u u
Class	B.A. 11.8 - Ist year	Level (Beginner/Lemer/Expert)	

## 1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1	2	3	4	5	6	4	8	9	1	D	11	12	13	1	4	15	16	17	18	19 20
Right Hand Left Hand	1	23	95	67	8	9 1	1/	12	13	14	15	16	17	18	19	20					

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick brown for jumps ever a tazy dog.	
Left Hand	The quile because for jumps are a hey day.	

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

Right Hand	The	e quick only a geblin fimbs over the lazy dwarf. guilt only geblin fimps were the long dwarf.	
Left Hand	734	going after any dependent and all and and and	

4. Write with both hands 'A to Z' in small letters.

Right	abcdefghijklmnopznotuvoxyz
Hand	abcdefghijklmnopznotuvoxyz.
Left Hand	abcdsfghijklmnop znotavwæyz.

5. Signature with Left Hand

However for the

more Amisha	
The start and a	5

Left Hand

	Handwriting Sample collect Mr. Siddig	GALGOTI/ GALGOTI/ ionfor-Completion of Resea ui Mohd. Khaja Moinuddin	rch Thesisin Ph.D. (Forefisic Science) b
Name*	Burgya Hishur	DOB	1-7-2003
Sex*	Finiale	Date of Admission	
School/ College Name*	Manikchard Pahade	Nature of Hand*	Right hand
Writing Skill (Languages)	English	Best Writing Skill	
Cizes	U	Level (Beginner/Lemer/Expert)	
Right 1. Hand	Write 1 to 20 (1 to 10 with R 2 3 4 5 6 7	the second se	t Hand)

	www. https://www.com/article/		1
2.	Write with both hands "The quick	brown fox jumns over a lazy dog?	

11 12 13 14 15 16 17 18 19 20

Right Hand	The quick super for jumps own a elezy. dog	
Left Hand	The quick durown for jumps own a day dog The goich known fair jumps own, a logg dog	

3.7	Write with	both hands 'The quick onyx goblin jumps over the lazy dwarf'	

Right Hand	The quick anya	goblin	Jumps own etter dazy dwarf
Left Hand	The quick snifts	gebilin	jumps own elle dazy dwarf jumps own The lagy dwarf

Right Hand	ab c d e fgh ijk 1 m nop gr s turw x y z
Left Hand	abcdcjghijkimnopyzsturraxyz

5. Signature with Left Hand

Brally Wisker

Russyn Husbur

	Mr. Siddiqu	GALGOTI UNIVERSI ionfor-Completion of Resea d Mohd. Khaja Moinuddin	rch Thesisin Ph.D. (Forensic Science) by
Name*	Dipake Kale	D0B	18 10 2002
Sex*	female	Date of Admission	
School/ College Nan			Right
Writing Skil Languages)		Best Writing Skill	
Class	B.A.L.L.B.I Year	Level (Beginner/Lemer/Expert)	
Hand	1. Write 1 to 20 (1 to 10 with Ri	3 10	
Right - Hand	12 12 23 14 15 2. Write with both hands "The q The quick brown f	nick brown fox jumps over fox jumps over o	ralazy dog' Nazy dog
Right -	2. Write with both hands "The q The quick brown f	uick brown fox jumps ove	ralazy dog" Nazy dog
Right - Hand Left	2. Write with both hands "The q The quick brown f	nick brown fox jumps ove fox iuvnps over o for jumps over	a lazy dog a lazy dog a lazy dog
Right - Hand Left Hand Right 4- Hand	2. Write with both hands "The quick brown of The quick brown of The quick brown 3. Write with both hands "The quick only 2. gob!	uick brown fox jumps over fox iumps over o For jumps aver uick onyx goblin jumps or fin jumps over	r a lazy dog' a lazy dog a lazy dog er the lazy dwarf' the lazy dwarf'
Right - Hand Left Hand Right 4- Hand	2. Write with both hands 'The q The quick brown f The quick brown The quick brown 3. Write with both hands 'The q	uick brown fox jumps over fox iumps over o For jumps aver uick onyx goblin jumps or fin jumps over	r a lazy dog' a lazy dog a lazy dog er the lazy dwarf' the lazy dwarf'
Right - Hand - Left Hand - Right - Hand Left -	2. Write with both hands "The quick brown f The quick brown f Rie quick brown 3. Write with both hands "The q The quick only gob! The quick only gob!	nick brown fox jumps over fox jumps over o for jumps aver nick onlyx noblin jumps on lin jumps over oblin jumps over	r a lazy dog' a lazy dog a lazy dog er the lazy dwarf' the lazy dwarf'
Right - Hand - Left - Hand - Hand - Left - Hand -	2. Write with both hands "The quick brown of The quick brown of The quick brown 3. Write with both hands "The quick only 2. gob!	nick brown fox jumps over fox jumps over o for jumps aver nick only goblin jumps ov lin jumps over oblin jumps over	r a lazy dog a lazy dog a lazy dog er the lazy duart the lazy dwart the lazy dwart

5. Signature with Left Hand

Qkale	Orale	

			din (Research Scholar) 2018
Name* Sex*	Prachi vishnu		16-56p - 2003
	Female	Date of Admission	
School/ College N		Aboc	Right
Writing SI Language	all O to t	Best Writing Skill	
Class	BA-LLB-1SH	Level (Beginner/Lemer/Expe	rt)
	1. Write 1 to 20 (1 to 10	with Right Hand 11 to 20 With	Left Hand)
Right		and a second and a second second	and a most of
Hand	123456	7 8 9 10 11 12	13 14 15 16 17 18 19 20
Left Hand	11 12 13 14 1	5 16 17 18 19	120
	FRANKS CHILDREN	AL 20 (1972) 10 - 10 -	
-	<ol><li>Write with both hands</li></ol>	The quick brown for jumps	over a lazy dogʻ
Right	-II and	n i	S 12 1 1 1 1 1 1 1 1
Hand	The guick	anown toz lumi	's over a lazy dag
Left Hand	many .	1	es over a lack dog.
	and Jarres	promit LAN Daut	to over a tack tot.
	3. Write with both hands	The quick onyx goblin jump	over the lazy dwarf"
Right			
Hand	The quick	anya gablin Ju	imps over the lozy dwo
Left			Sector and the sector of the sector
Hand	the quict of	nyz goblig jur	mps over the large alw
	a manufacture and	and the second second	1
Right	4. Write with both hands	A to Z' in small letters.	1, n. 0 . P. q. s. s. t.
Hand	a.v. wixi	and distribut	unio inidiorati
Left			t-2. K-p.g. onn-n
	C . (2 + 10 / + 0	The state of the s	H DIN A H DISC A
Hand	64.42, 7.19	14 Martin Propriet	and a rideate

5. Signature with Left Hand





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Handwriting Sample collection for Completion of Research Thesisin Ph.D. (Forensic Science) by Mr. Siddiqui Mohd. Khaja Moinuddin (Research Scholar) 2018 Cale chi atao 2007

Nama*	Sakshi Narsing Tapise	DOB	18/10/2003 .
Sex*	female	Date of Admission	
School/ College Name*	M.P. law. Collage	Nature of Hand*	Right .
Writing Skill (Languages)	English .	Best Writing Skill	
Class	8.A.LL-B I	Level (Beginnen/Lemen/Expert)	

×.	Write 1 to 20 (1 to	16 with Diold	Hand 11 to 20.	With Left Handy
	ALTERNA & R.D. WALVE UN	TO WHILL FORM	110000 11.10.40	PERCENCER PROPERTY

Right Hand	4.2,3,4,5,6,7,8,9,10.
Left Hand	4.2.3.4.5.6,7.8.9.10.

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The	quick	brown	fox	jumps	over	a	lazy	dog.
Left Hand	The	quick	690400	400	jumps or	ver a	ary	69.	

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The quick only a goblin jumps over the lazy dwarf.
Left Hand	The quick only gallin immes over the lazy dwalas
	4. Write with both hands 'A to Z' in small Jetters.
Right Hand	a, b, cd, e, f,g, h, i, j, k, i, m, n, o, P, 9, Y, s, +, W, V, W, X, Y, Z.
Left	a, bc, dQ, F, 2 b :. V- h, 1, m, h, o, p, g, r, s, t, 4, y, w, x, y, 2.

5. Signature with Left Hand





M		GALGORTI ionfor-Completion of Reser ai Mohd. Khaja Moinuddin	arch Thesisin Ph.D. (Forensic Science) by
Name*	Apurva Anil Hismale	DOB	20/01/2004
Sex.*	Temale	Dote of Admission	
School/ College Name*	M.P. law College	Nature of Hand*	Right Harid
Writing Skill Languages)		Best Writing Skill	
Class B.ALL.B 3st ye		Level (Beginner/Lemer/Expert)	
Hand 2.	1 12 13 ¹⁴ Write with both hands "The q		er a lazy dogʻ
La region de		0	rmps ares a lass
Hand Left Hand 3.	The quint C.K. b Write with both hands "The q	wauzn faz ji uickouyx goblin jumps o	Limps over a lass
Hand Left Hand 3. Right Hand	The quint C.K b Write with both hands The g quick only x go	uickouyn fax ji uickouyngoblinjumpso blin jumps ovi	NMPS OVER a lass dag ver the lazy dwarf.
Hand Left Hand 3. Right Hand	The quint C.K b Write with both hands The g quick only x go	uickouyn fax ji uickouyngoblinjumpso blin jumps ovi	LIMPS OVER a lass
Hand Left Hand Right Hand Left Hand Hand 4.	The QUACK b Write with both hands "The g quick only god re quick only god re quick only. Write with both hands "A to 2	wown fox ji uick ouyx goblin jumps o blin jumps ovi x goblin jul 2 in small letters.	Limps over a last dog er the lazy dwarf. nps over the last dwar
Hand Left Hand Right Hand Left Hand The Hand Kight A a	The QUACK b Write with both hands "The g quick only god re quick only god re quick only. Write with both hands "A to 2	wown fox ji uick ouyx goblin jumps o blin jumps ovi x goblin jul 2 in small letters.	Limps over a last dog er the lazy dwarf. nps over the last dwar
Hand Left Hand Right Hand Left Hand Hand Kight A a	The quinck b Write with both hands The q quick onlyx god R quick onlyx god R quick onlyx Write with both hands "A to 2 b c d efgh	uick ouyx goblin jumps o blin jumps ovi x goblin juu in small letters. i j K 1 m no p	NMPS OVER a lass dag verthe lazy dwarf.

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ė	÷	j	ú		-	ie	5		i A

Handwriting Sample collection for Completion of Research Thesisin Ph.D. (Forensic Science) by Mr. Siddlqui Mohd. Knaja MonudJin (Research Scholar) 2018

Name*	Tacuia Goilewad	DOB	04/03/2003
Sex ⁴	Female	Date of Admission	
School/ College Name*	Manilechand	Nature of Hand*	Right
Writing Skill (Languages)	English	Best Writing Skill	Right
Class	BA-LLB-IS+	Level (Beginner/Lemer/Expert)	

- L.	Write I to 20	(I to 10 with	Right Hand	11 to 20 With	Left Handy

Right Hand	1	2	3 4	4 5	6	7	8	9	10	
Left Hand	11	12	13	14,	15	16	12	18	la Ja 10	

2. Write with both hands 'The quick brown for jumps over a lazy dog'

Right Hand	The	quicle	brown fox jumps over a lazy dog.
Left Hand	The	quick	brown fox jumps over a lazy dog. brown fox dumps over a lazy dog.

Right Hand	The quick only goblin jumps over the lozy durn?
Left Hand	The wick only gobtin jumps over the lazy dward

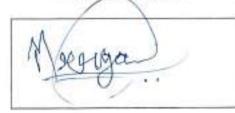
Right Hand	aN	Р	C.	9	e	\$	3	h	ĩ	j	15	1	8n	n	0	15	đ	r	\$ +	U	V	1×9
Right Hand Left Hand	0	h x	0	d	00	15	g	h	ĩ	1	k	1	m	n	0	9	0	1 7	- 5	t.	U	v

5. Signature with Left Hand

Barreija

Amilio	
Maria	

Name*		Mr. Siddiqi	ii Mohd. Khaja Moinuddin (	ch Thesisin Ph.D. (Forefisic Science) by Research Schnlar) 2018
Sex*	-	MRUGASHARA-S-DED	DOB Date of Admission	
School/ College N	ame*	FEMALE MANIKCHANTS PAHADE LAW COTTEGE	Nature of Hand*	
Writing S Language			Best Writing Skill	
Class		B.A.LLB. Iyear	Level (Beginner/Lemer/Expert)	
	1.	Write 1 to 20 (1 to 10 with Ri		Hand)
Right Hand	1	234567	8910	
Left Hand	11	12 13 14 1	5 16 17 18	19 20
	2.	Write with both hands 'The q	uick brown fox jumps over	a lazy dogʻ
Right Hand	Jh	y quick brown for	gumps over a.	layy dog.
Left Hand		e quick brown		
	З,	Write with both hands 'The q	nick onys goblin jumps ove	er the lazy dwarf'
Right Hand	Jh	s quick only gob	lin Jumps over I	he larger dwarf.
Left Hand	Th	e quick only x	gablin jumps o	ver the lazx duart
	4.	Write with both hands 'A to 2	" in small letters.	1179 VA
Right Hand	at	ocdefghijkl	mnopqrstu	NWXYZ
Left Hand	a.	bcdefghijk	Imnopa ast	UVWXYZ



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Muga	
Unit	



GALGERIAS

Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forefsic Science) by Mr. Siddiqui Mohd. Khaja Moinuddin (Research Scholar) 2018

Name*	visiwaji't Ranvin	DOB	17 - NOV - 2003
Sex*	Male	Date of Admission	22- Dec - 2021
School/ College Name*	M. P. IQW. CONCERE	Nature of Hand#	Right
Writing Skill (Languages)	English	Best Writing Skill	
Class	B.A. 11-B	Level (Beginner/Lemet/Expert)	

## 1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1 , 2, 3, 4, 5, 6, 7, 6, 9, 10, 11, 12-, 13, 14, 15, 11, 17, 16, 1	1,20
Left Hand	11 12 19,14.15,15,17,19,19.20	

# 2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	€. The	quick	brown	for	jumps	OVEE	a,	1024	dog '
Left Hand	274	galera	WOWN G	1 34	mps and	14 10	2	Ang	

	- 3.	Write with be	oth hands "Th	e quick onyx p	poblin jumps	over the las	y dwarf	f	
Right Hand	The	Quick	anyx	Austin	Jumps	GVER	the	1024	dwasp,
Loft	1	e abutck e	- C					0	

4. Write with both hands 'A to Z' in small letters.

Right Hand	A. b, c, d, e, f, g, h, i, j; K, I, M, n, o, P, a, 変, 5, +, U, v, W, x, Y, Z
Left	れたいは、の、そ、の、ち、うううい、いいの、ハ、の、ア、の、東、S、ナ、リ、マ、マ、ス、メ、ス
Hand	の、し、こ、は、月、月、の、「」、「、、、、、、、、、、、、、、、、、、、、、、、、、、、、、

5. Signature with Left Hand

Warmitte.

100 m	
6.15	
	6.10
The second se	150
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collectionfor-Completion of Research Thesisin Ph.E	), (Forethic S

		search Theshin Ph.D. (Forensic Science) by fin (Research Scholar) 2018
Peharkar Asmita	DOB	2910712004

Name*	Penaricar Asmita	DOB	2910712004
Sex*	FERNALE	Date of Admission	1910112012
School/ College Name*	ev. b. ron colicat	Nature of Hand*	
Writing Skill (Languages)		Best Writing Skill	
Class	BALLB-I	Level (Beginner/Lemer/Expert)	

	1.	Write 1 to 20 (1 to 10 wid	Right Hand	11 to 20 With Left Hand)	
--	----	----------------------------	------------	--------------------------	--

Right Hand	1,2,3,4,5,6,7,8,8,10,11,13,13,14,15,16,17,18,19,20
Left Hand	1,2,3,4,5,6,7,8,9,11,11,12,13,14,15,16,12,18,19,20

2. Write with both hands 'The quick brown fox jumps over a lazy dog"

Right Hand	"The quick brown fox jumps over a lazy dog"
Left Hand	"The quick brown for jumps over a largedy"

# 3. Write with both hands 'The quick onya goblin jumps over the lazy dwarf'

Right Hand	"The quick only gobin jumps over the lazy dwart!
Left Hand	The year any bolk in jumps over the lung diant

4. Write with both hands 'A to Z" in small letters.

Hand	abicidieifigihiiijileiiiminioililitisituivioixiyiZ
Left Hand	a. と、と、d、P、FS、ト、1、ジ、ヒ、1、M、カ、ハ、シア、リ、マ、シ、キ、ル、マ、ル、ビ、メ、モ

- 5. Signature with Left Hand
- 6. Signature with Right Hand



Asmita P-

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The second se	- 6 -	12
The second se	1	
		ALC: NO.

Handwriting Sample collection for-Completion of Research Thesisin Ph.D. (Foreibic Science) by Mr. Siddiqui Mohd. Khaja Moinuddin (Research Scholar) 2018

Name*	Revotee D. Fursule	DOB	23/09/2002
Sex*	Female	Date of Admission	08/02/2022
School/ College Name*	M.P. Law college	Nature of Hand*	
Writing Skill (Languages)		Best Writing Skill	
Class	B.A.LLB I Yr	Level (Beginner/Lemer/Expert)	

- 12	Weiter T to 20.01	to 10 with Right Hand 11 to 20 With Left Hand)	
	WINE 1 10 70 (1	to to with Right Hand 11 to 20 with Left Hand]	

Right Hand	1.2.3.4.5.6.7.8.9.10
Left Hand	12,12,13,14, 15,16,17, (A.19,20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

					jumps				
Left Hand	The	quick	brown	fox	jumps	ONON	q	192Y	dog)

3. Write with both hands 'The quick ony's goblin jumps over the lazy dwar	Г
---------------------------------------------------------------------------	---

Right Hand	The	quick	c onyx	gobin jum	ps over the	1424	1 dwarf.
Left Hand	Sine	goic K	online go	goblin jum sblin jumps	over the	h≥y	dwat R

Right Hand	a,b,cdef	ghijki	mn opq+stuvwx yz.
and the second se			noperstyvwxx2

5. Signature with Left Hand





Long a

-	Handwriting Sample collect Mr. Siddig	GALGORTIC onfor-Completion of Resea	rch Thesisin Ph.D. (Forensic Science)
Name*	Amol Borde	DOB	4 March 2003
Sex*	Male	Date of Admission	1 tomon goog
School/ College Name*	M.P. law College	Nature of Hand*	Right
Writing Skill Languages)	English	Best Writing Skill	0
Class .	8. A. 11 R - I	Level (Beginner/Lomer/Expert)	

Right Hand	1.2,3,4,5,6.7,8,9,10
Left Hand	12,12,13,14,15,16,17,18,19.10,20

2. Write with both hands 'The quick brown fox jumps over a lazy dog	both hands 'The quick brown fox jumps over a lazy do	0g* -
---------------------------------------------------------------------	------------------------------------------------------	-------

Hand	The o	quick	brown	-fox	iumn	over a	lozy dog
Left Hand	The aui	k brin	n fax	Jump	OVER (	1 1024	dog

Right Hand	The	quick	ONYX	ablin	jumps	over th	e lazy down
Left Hand							· bizy dawn

Right Hand	a, h, c, d, e, f, q, h, i, j, k, 1, m, n, o, p, q, r, s, +, u, v, w, x, y, z
Left Hand	aberde Ggihisik Immonopansturve xya

5. Signature with Left Hand

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- No.	- All -
- 14	10000

GALOPHIAS

Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Fore Fsic Science) by Mr. Siddiqui Mohd. Khaja Moinuddin (Research Sciolar) 2018

Name*	Lakshmi Gihinminu	DOB	30-09-2008
Sex*	Female	Date of Admission	
School/ College Nonc*	Pohade Law colleg	Nature of Hand*	Right Hand
Writing Skill (Languages)	English	Best Writing Skill	
Class	B.A. LLB - I	Level (Beginner/Lemen/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	7	13	2	3	4	5	G	7	8	9	1(	D	11	12	1	3 14	15	76 71	18	1920.
Left Hand	1	23	4	5	6	7	89	10	11	. 1	21	13	14	15	16	17 /8	19	20.		1920.

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The	quick	brown	fox	jumps	over	a	lazy	dog
Left Hand	The	quick	brown	fox	jumps jumps	over	0	Lazy	dag.

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The	quick	onyx	goblin	jumps	over	the	lazy	dworf.	
Left Hand	The	quick	ony×	gaptin	Jamps	aver	the	lazy	dworf. dwarf.	

4. Write with both hands 'A to Z' in spord invore.

Right	A BC DEFGHIJKLMNOPQRSTUVWXYZ.
Left	A BC DEFGHIJKLMNOPQRSTUVWXYZ. ABCBEFGHIJKLMNOPQRSTUVWXYZ.
Hand	

5. Signature with Left Hard





			GALGOTI	vs ý
		Handwriting Sample collecti Mr. Siddigu	10 Ph I R 4 II A 4	rch Thesisin Ph.D. (Foreitsie Science)
Name*	3	Vijaya Misal	DOB	9/10/2008
Sex*		Female	Date of Admission	4. 01 1003
School/ College N		M.P. Law College	Nature of Hund*	Right
Writing, SI Language		English	Best Writing Skill	g.n.
Class		BA. UB-1 year	Level (Beginner/Lerner/Expert)	
713430301.0	Я.	Write 1 to 20 (1 to 10 with Rig		t Hand)
Right Hand	1.	2,3,4,5,6,7,8,9,	0,11,12,13,14	, 15, 16, 17, 18, 19, 20
Left Hund	2,	2.34.3.6,7,8,9,1	0, 71, 12, 18, 14, 15	, 16. (7, 18, 19, 20
	2	Write with both hands "The qu	nick brown fox jumps over	r a lazy dog'
Right Hand				over a lazy dog'
Left	TA	je quick brown	fox jumps ove	or a lazy alog!

Right Hand	The	quick	onyx	goblin	jumps	over	the lazyd	work!
Left Hand	The	quick any	k gobb	in jumps	S OVRY -	the las	the lazyd zy dwarf.	

	4. Write with both hands 'A to Z' in small letters.
Right	ABCDEFGHIJKLMNOPQRSTUVWX92
Hand	ABCBEFGHITKLMNOPORSTUVWXYZ
Hand	DECRETARIALI KENARGEGKELOVWEDE





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8.	-	s.
	q	G

Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forefric Science) by Mr. Siddlqui Mohd. Khaja Moinuddin (Research Scholar) 2018

Name*	Janhavi Shastni	DOB	91/03/200%
Sex*	Fermale	Date of Admission	22/12/2021*
School/ College Name*	Manikchand Pahade	Nature of Hand*	Right hand
Writing Skill (Languages)	English	Best Writing Skill	
Class	BALLOI	Level (Beginner/Lemer/Expert)	Beginner

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1.	2	ï	3	14	15	, G	+ 7	18	, 9	1 10	11	1 12	, 13 ,	14.	15	10,	el , 81, 41	,20
Left Hand	1.	2	d	3	4	5	G	7	8	9,	10,	11 :	R. 1	3.14	. 15	. 16	,17	18, 13	120

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The	quick	brown	નિવ	jumps	over	a	lazy	dog	
Left Hand	The	drick	brawn	for	Jumps	over	α	lorzi	j dog.	

Right Hand					goblin jumps jum P.S				dwarf
Left Hand	The	quick	s anyoo	gablin	jumps	ana	the	(072)	dwarf

4. Write with both hands "A to Z" in small letters.

Right Hand	a b c d e f g h i j k i m m o p q m s t u v w s y z
Left	abcdefghijkimmopgrstuvwæyz
Hand	abcdefghijkimsparstuvwæyz

5. Signature with Left Hand

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 Clause		
-	2.8	

Handwriting Sample collect Mr. Siddig	SALGO SALGO ionfor-Completion of Ro ui Mohd, Khaia Moinud	Search Thesisin Ph.D. (Forefisic Science) by
Sneha N. Nozavkor	DOB	
Female	Date of Admission	
M D Law Olivers	Nature of Llunds	

Name*	Grieha N. Nazavikar	DOB	1
Sex*	Female	Date of Admission	
School/ College Name*	M.P. Low conego.	Nature of Hand*	right hand
Writing Skill (Languages)	English	Best Writing Skill	
Class	BAILBI	Level (Beginner/Lemer/Expert)	

$\mathbf{T}_{i}.$	Write 1 to 20	(1 to 10	0 with Right	Hand 11	to 20	With Left	Hand)	

Right	いえいろいちいち、そいろいろいろいろいろいはいろいはいはいはいはいしの、2000
Hand	8191 (C) + (C) + (A) + (
Len	1,213,4,5,6,7,8,9,10,11,14,13,14,15,16,10,104
Hand	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The cu	nick bar	wn for	jumps	over a	lazy	god .	
Left Hand	The C	ict boo	ich foc	f inpit	over a Sovo S	a to	NSK.	dog.

Right	The quick o	nyx goblin -su	goblin jumps over the lax いれら のしとく the	The light duas
Left	The mirk	ania astin	JUMPS DRS	The Look is not

	4. Write with both hands 'A to Z' in small lettern.
Hand	aibicid 1019, bistik, L, M, N, 0, P, Q, x, 5, +, U, V, W, x, 8, Z.
Left Hand	ちょう、しょう、し、レ、レ、レ、レ、レ、レ、し、し、し、し、し、し、

5. Signature with Left Hand

Sucha

		qul Mohd. Khaja Moinuddin	arch Thesisin Ph.D. (Forefisic Science) by (Research Scholar) 2018
Name*	Payal Murade	DOB	2/06/2004
šex*	Female	Date of Admission	21/03/2022
School/ College Nam	. M.P. tow college	Nature of Hand*	Right hand
Writing Skill Languages)	0	Best Writing Skill	0
Class	BA.LLB 1st year	(Beginner/Lerner/Experi)	
8	1. Write 1 to 20 (1 m 10 with B	light Bard 11 to 20 With 1	0 Handy
Right			n nand)
Hand	2345678	5 10	
Left	1 12 13 14 15 10		
Hand	1 12 13 14 15 16	17 18 19 429	
-	2. Write with both hunds "The	quick brown fox jumps ove	er a lazy dog'
Thinks I.	1.57 X.275 X.275		
Hand	The quick brow	h toru jumps o	Vor a razy dog.
Hand			· ·
Hand Left t, Hand	The Bick brown	n tox Jamps	over a lazy dog'
Hand Left Hand Right Hand	Me Bick brows	n tex Jamps quick onyx goblin jumps o	ored a lazy dog '
Hand Left Hand Right Hand Left	The Bick brows Write with both bands 'The The quick on you	n tex jamps ( quick onyx goblin jumps o goblin jumps	ored a lazy dog '
Hand Left 1, Hand Right 1 Hand Left 1 Hand	Me Bick brows Write with both bands 'The The quick onlyne he quick onlyne	n tex jamps ( quick onyx goblin jumps o goblin jumps geblin <i>jumps o</i> )	over the lazy dog' over the lazy dwarf
Hand Left 1, Hand Right 6 Hand Left 1 Hand 1 Right 6	The Bick brows The quick on yrc The quick on yrc The Quick on yrc	n tex Jamps ( guich onyx goblin jumps o goblin jumps goblin <i>jumps</i> () z' in small lettern.	over the lazy dog' over the lazy dwarf
Hand Left 1, Hand Right 6 Hand Left 7 Right 6 Hand Left 6	Me Bick brown Write with both hands 'The The quick on yrc he quick on yrc	n tex Jamps ( guich onyx goblin jumps o goblin jumps goblin <i>jumps</i> of z'in small lettern. j K 1 m nof g	over a lazy dog' verthe hazy dug' over the lazy dwarf es the lozy dwarf!

- Layat

terel.

lame*	Amouto Hajone	DOB	Research Scholar) 2018
icx*	Female	Date of Admission	
chool/ follege Name*	M.P. Law College	Nature of Hand*	Right Hand
Vriting Skill Languages)	English	Best Writing Skill	
lins	BA-LLB I	Level (Beginner/Lemer/Expert)	Beginnear,
Hand	12,3,4,516, 10,14,15,10,17		
	The quick bos		r*lazy dog" PS OVENY a lazy dog
Laft			5 Over a rate y dag
	Write with both hands 'The qu		
and a second sec	e quick ontx	90blin JumPs	over the lazy diver
Right Th Hand Th	, pack 001×	Opt B. S	ALC: NO DECEMBER OF A

possentia.

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GALGOTIAS

Handwriting Sample collection/or-Completion of Research Thesisin Ph.D. (Forefole Science) by Mr. Siddiqui Mohd. Khaja Moinuddin (Research Schular) 2018

Name*	priti v Kawhale	DOB	
Sex*	female	Date of Admission	
School/ College Name*	M.P. law college	Nature of Hand*	
Writing Skill (Languages)	English	Best Writing Skill	
Class	BA-LLB-J	Level (Beginner/Lemer/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

	1.213,4,516,7,8,9,10
Left Hand	11,12,13,14,15, 16,14,12,19, 22

2. Write with both hands 'The quick brown for jumps over a lazy dig'

Right Hand	The quick brown Fox Jumps over a lazy dog	
Left Hand	The pulier known for jump over a locary body	

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

Right Hand	The	quick	onyx	goblin	jumps	0V9T	the	lazy	dwarf
Left Hand	THE .	quick	onya	geoblin	jumps	OVel	i the	e Lecy	dwarf dwarf

5. Signature with Left Hand

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Churchalor	
Reconners	

	II	GALGOTI				
	Humatwriting Sample collect Mr. Siddiq	ionfor-Completion of Resea iii Mohd. Khaja Moinuddin	rch Thesisin Ph.D. (Foreibic Science) b (Research Scholar) 2018			
Name*	Achar D. Gedam	DOB				
Sex*	fernale	Date of Admission				
School/ College Name*	M. P. Law Callege	Nature of Hand*				
Writing Skill (Languages)	English	Best Writing Skill				
Class	8ALL'B(I) Level (Beginner/Lemer/Expert)					
10	Write 1 to 20 (1 to 10 with Rig	ght Hand 11 to 20 With Left	Hand)			
Diaha	2, 8, 4, 5, 6, 4, 8		275.00			
Left Hand 41,12	2344.15, 16, 17,	18,19,20.				
	Write with both hands 'The q		a lazy dog*			
		ox Junipes onez				
Hand Vio	Conference and the state of the second se	a provinsi di secondi se constructione di secondi	0			

Right Hand	The anide any a goblin jumps over the lazy dwarf.
Left Hand	The queick only goblin jumps are the loser twasy.
	4. Write with both hands 'A to Z' in small letters.
Right Hand	a. b. c. d. e. f. g. u. i. J. K. L. m. N. O. P. q. E. S. t. u. v. w. x
Left Hand	a. b. c. d. o. f.g. h, i, J. k, k, m. n, o, r, q, e. s. t. u. , w, x, Y. Z.

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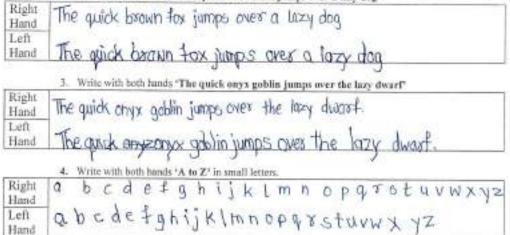
Handwriting Sample collection for-Completion of Research Thesisin Ph.D. (Foreficie Science) by Mr. Siddiqui Molul. Khula Moinuddin (Resear-

Name*	Sunita kailash Vadav		Research Scholary 2018
Sex*	Female	Date of Admission	
School/ College Name*	Phrilichand Phhate Law	Nature of Hand*	Right band
Writing Skill (Languages)	Right Hand English	Hest Writing Skill	English
Chasp	BALLB - 1" NEDY	Level (Beginner/Lemer/Expert)	physics

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1	2	3	4	5	6	7	8	9	10	
Right Hand Left Hand	11	12	13	14	15	16	17	18	19	20	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'



5. Signature with Left Hand

Hand

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-		

_ KSTON.	

	Mr. Siddiqi	ii Mohd. Khaja Moinudd	earch Thesisin Ph.D. (Forefisic Science) by in (Research Scholar) 2018
Name* Sex*	Sheja) V Rehapade	and the second se	101019 2003
	f emos e	Dote of Admission	
ichool/ College Name*	M. P. Law conege Aurongabod		Minight hand
Vriting Skill Languages)		Best Writing Skill	
llase	BALLB I Year	Level (Beginner/Lemer/Exper	8
Right 1 - Hand Left 1 - Hand 1 -	13,415,67	18,9,10,11 1,8,9,10,11,1	, 12, 13, 14, 15, 16, 17, 18, 1 2, 13, 14, 15, 16, 17, 18, 1 2, 13, 14, 15, 16, 17, 18, 13, 2
Right Hand 1 , Left 1 , Hand 2 , Right 1 , Hand 2 , Left 1 ,	213,4,5,6,7 213,415,67 Write with both hands The qu The QUICK boow	18,9,10,11 1,8,3,10,11,1 ulek brown Fox jumps o N Fox jumps	, 12, 13, 14, 15, 16, 17, 18, 1 2, 13, 14, 15, 16, 17, 18, 1 2, 13, 14, 15, 16, 17, 18, 12, 2 ver a lazy dog" over a lazy dog "
Right 1 , Hand 1 , Hand 1 , Right 2. Right 1 , Hand 1 , Left 1 , Hand 1 ,	213,4,5,6,7 213,415,6,7 Write with both hands The qu The quick brow The quick brow	・8、9、10、11 1、8、3、10、11、1 ulek brown Fos jumps o の Fox jumps s>TT ちのX Jumps	, 12, 13, 14, 15, 16, 17, 18, 1 2, 13, 14, 15, 16, 17, 18, 1 2, 13, 14, 15, 16, 17, 18, 12, 2 ver a lazy dog' over a lazy dog' s over a lazy dog' s over a lazy dog'
Right 1 . Hand 1 . Hand 1 . Right 1 . Hand 1 . 2. Right 1 . Hand 1 . 3.	213,4,5,6,7 213,415,67 Write with both hands The qu The QUICK brow The QUICK brow	+ 8 , 9 , 10 , 11 1, 8, 3 , 10 , 11 , 1 nick brown Tox jumps o の Fox Jumps s>T1 ちのX Áurry p nick onyx goblin jumps	, 12, 13, 14, 15, 16, 17, 18, 1 2, 13, 14, 15, 16, 17, 18, 1 2, 13, 14, 15, 16, 17, 18, 12, 2 ver a lazy dog' over a lazy dog' s over a lazy dog' s over a lazy dog'

pages.



Class

	Handwriting Sample collect	GALGO GALGO Infor-Completion of Re	TIAS
Name*	Anushke kasliwal	DOB	2.8 JUDE 200%
Sex*	Female	Date of Admission	1.8 10115 2004
School/ College Name*	M. P. Low, college	Nature of Hand*	Right
Writing Skill (Languages)		Best Writing Skill	

1. Write I to 20 (I to 10 with Right Hand 11 to 20 With Left Hand)

Level

Right	1-12-3,415,6,7,8,9,10,11,12,13,14,15,16.
Hand	17. 18,19,20
Left	1.2.3.4.3,670,010,11,2,18,14,10,16
Hand	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16, 17, 18,19,20 1,2,3,4,5,6,7,9,0,10,11,2,18,14,19,16

(Beginner/Lerner/Expert)

	2. Write with both hands 'The quick brown fox jumps over a lazy dog'	
Right Hand	The quick brown fox jumps over a lazy dag	
Left Hand	The quick book a fax jumps over a large log	

3. Write with both hands 'The quick onyx goblin Jumps over the lazy dwarf'

Right Hand	a The nuich only goblin jumps over the lazo d the guich only goblin jumps over the lazo	y olwarf
Left Hand	a the quick analy gottin junt over the trag	s duant

4. Write with both hands 'A to Z' in small letters.

Right	ab, cid. e.f. a.h. Til. k. I. m. n. n. n. r.
Hand	aibi cidieifigihitijiki, 1 iminiai pigiris Liu N. W. X. Y.Z abi cidie F. J. K. J. L. N. No. Paris - D. UVW
Left	abic do Calif the and Date a buyu
Hand	XII Jun Man Mar March Parts

5. Signature with Left Hand

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A. M. Kosliwa	1

G	Q.,
GALGOTIAS	άj
Hundwriting Sample collectionfor-Completion of Research Thesisin Ph Mr. Sindieui Mohd, Khaja Meiaradda (Research Scho	

Name*	Shivani N. Dhakane	D08	03/08/2002
Sex*	Female	Date of Admission	
School/ College Name*	M.P.L College .	Nature of Hand*	Right
Writing Skill (Languages)		Best Writing Skill	
Class	FY. BA-LLB	Level (Beginner/Lemer/Expert)	

#### 1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,15
Left Hand	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,15 20, 1,2,3,45,6,7,6,9,10,12,15,14,15,16,17,29,20,

#### 2. Write with both hunds 'The quick brown first jumps over a lazy dog'

Right Hand	The quick	hown	tox jumps	over	a fazy	dog '
Left Hand	The quick The quick	brown	Por Zamps to	er a le	iezy tog	

#### 3. Write with both hands 'The quick onyx gobiin jumps over the lazy dwarf'

Right Hand	The	quick	onix	gablin	jumps	Men	the	lozy	dword.
Left Hand	The	guich	any	tgolin	jumps	0407	the	hey	dwart. dwart.

Hand	ABCDE abc de fghijkim nopgrstuvwæ Nz.
Left Hand	Jubedezahishimnoppreturancy?

5. Signature with Left Hand 6. Signature with Right Hand

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6.	Sec.
- No.	- 10
-	Contract .

5419937148 Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Foreasic Science) by Mr. Sidciqui Mohd. Khuja Moinuddin (Research Scholar) 2018

Name*	Wakhause Sonali Eknel	DÖB	23/07/2003
Sex*	Female.	Date of Admission	24/01/2022
School/ College Name*	Manik Chand Puba	Nature of Hand*	Right hand.
Writing Skill (Languages)	English	Best Writing Skill	English
Class	BALLS 14	Level (Beginner/Lemer/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right	123456789104	
Hand		
Hand	11 12 13 15 15 16 17 18 19 20	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick brown fox jumps over a lazy dog	
Left. Hand	The quick brown fox jumps over a lazy dog The quick brown fox just PS over a lazy dog	

3. Write with both hands "The quick onyx goldin jumps over the lazy dwarf"

Right Hand	The quick only goblin lumps over the last dwarf	
Left Hand	The quick only goblin Jumps over the lazy dwarf The quick once goblin Juppes over the lazy dwar	

Right Hand	0	P	C	d	e.	÷	d	h	î	Î	ĸ	1	m	n	0	P	q	r.	St	u	M	W	X	у	Z.
Left Hand	at	n c	d	8	R	gh	î,	i p	5	n	71	1 0	s fo	q.h	S	÷1	μ	ZИ	lκ.	52	-				

5. Signature with Left Hand

Seus

Sel

Name*		iddiqui Mohd. Khaja Moinudi	iin (Research Scholar) 2018
Sex*	Shivani Bhanga	Date of Admission	
5chool/	temale	Nature of Hand*	101 - 1 I
College Name	M.P. Low pollege	A. bon	Astaht hand
Writing Skill (Languages)		Best Writing Skill	10
Class		Level	
20192-3	BA-118-J Yr.	(Beginner/Lerner/Expe	rt)
2. Right	Write with both hands "	6 17 18 19 20 The quick brown fox jumps of	
Hand 11 2 Right Hand 7	Write with both hands " he quick brow	The quick brown fox jumps over	v a lozy dag
Hand 11 Right Hand 7 Left Hand 7 3.	Write with both hands " he quick brow <u>Le quick brow</u> Write with both hands "	The quick brown fox jumps ove Wh for Jumps ove Wh For Jumps ove Wh For Jumps ove	w a lazy dag or a lazy dag over the lazy dwart
Hand 11 Right Hand 7 Left Hand 7	Write with both hands " he quick brow <u>be quick brow</u> Write with both hands " write with both hands " we quick JNyn	The quick brown tox jumps ove on fore Jumps ove whit for Jumps are	nr a lazy dog or a lazy dog over the lazy dwart her the lazy dwart,
Hand 11 Right J Hand J Left J Right J Right Hand J Left J Left J Hand J	Write with both hands " he quick brow be quick brow Write with both hands " Write with both hands " Write with both hands " Write with both hands " Write with both hands "	The quick brown tox jumps over on for Jumps over whit for Jumps or The quick only gobilin jumps gobilin jumps or Statin jumps o	nr a lazy dog or a lazy deg over the lazy dwart her the lazy dwart,
Hand II Right Hand I Left I Hand I Right Hand I Left I Hand I Right Hand I A Right Hand I Left I Hand I Hand I Left I Hand I	Write with both hands " he quick brow be quick brow Write with both hands " Write with both hands " write with both hands " write with both hands " write with both hands "	The quick brown tox jumps over in for Jumps over whith for Jumps over the quick only goblin jumps goblin jumps over goblin	nr a lazy dog or a lazy dog over the lazy dwart her the lazy dwart,
Hand II Right Hand Left Hand I Right Hand II Left Hand II A A 4.	Write with both hands " he quick brow be quick brow Write with both hands " Write with both hands " write with both hands " write with both hands " write with both hands "	The quick brown tox jumps of in for Jumps ove with for Jumps ove goblin jumps of goblin jumps of goblin jumps of goblin jumps of A to 2° in small letters. Ff log Hk Ti Ji Kk 1	nr a lazy dog or a lazy dog over the lazy dwart her the lazy dwart,

S. P. Bhargal

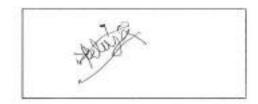
G. P. Bhongal.

	Handwriting Sample collect Mr. Siddig	GALGOTI ionfor-Completion of Resea ui Mohd. Khaja Moinuddin	rch Thesisin Ph.D. (Forenesic Science) by
Name*	Rulard Braina Governm		01-09-2003
Sex*	female	Date of Admission	
School/ College Name*	M. p. Law, college,	Nature of Hand*	
Writing Skill Languages)	0	Best Writing Skill	biabt hand
Class	BA. 22 B & years	Level (Beginner/Lemer/Expert)	mgas mana
			1, 10, 10, 14, 15, 16, 14, 18
Left Hand L. Right 1-Tho Hand	2, 3, 4, 5, 5, 7, 1 Write with both hands "The q L quick brown Fix H gick brown fix in	8.2.15.11,12 ( uick brown fox jumps over ( jumps) ouers a	19.14.15.15.17.18.18.20. n lazy dog' Vacy dog'
Left Hand Right Hand Left Hand	Write with both halids "The q L quick brown Fir He gick beawn fix in	<u>8.2.15.11,12.1</u> uick brown fos jumps over ( jamps ouern a ops over a laz	19.14.15.18.17,18.19,20. na hazy dog" Vacy dog" y dog:
Right Korner Hand Left C. 7 Hand 3. Right The	Write with both hands 'The q L quick brown Fir	<u>8 9, 15, 11, 12, 1</u> uick brown fox jumps over ( jamps owern a ops over a laz aick onyx goblin jumps over	19 . 14 . 15 . 15 . 17 . 18 . 19 . 29 . " a lazy dog" " Nacy" dog" y dog: er the lazy dwarf"
Left Hand Hand Left Hand Right Right Right Right Right Right Right Right Right Right Left Left Hand	Write with both hands 'The q L quick brown Fir He gick brown Fix in Write with both hands 'The q quick only a gorbin	<u>8.2.15.11,12.1</u> uick brown fox jumps over ( Jamps over a ops over a laz uick onyx goblin jumps ov jumps over the	19.19.15.18.17.18.19.29. r a lazy dog" Vac.9 dog' y dog' er the lazy dwart Lazy dwart.
Left Hand Left Hand Left Hand Left Hand Left Hand	Write with both hands 'The q L quick brown Fir He gick brown Fix in Write with both hands 'The q	<u>8.9.15.11,12.</u> uick brown fox jumps over ( jumps over a ops over a laz aick onyx goblin jumps ov jumps over the b jumps over the	19.19.15.18.17.18.19.29. r a lazy dog" Vac.9 dog' y dog' er the lazy dwart Lazy dwart.
Left Hand Left Hand Left Hand Left Hand Left Hand Left Hand Left Hand Left Hand	Write with both hands 'The q L quick brown Fir He gick brown Fir Write with both hands 'The q quick only 2 gobin L guik only 2 gobin Write with both hands 'A to Z	<u>8.9.15.11,12.</u> uick brown fox jumps over ( jumps) owers a ops Overs a laz aick onyx goblin jumps over jumps) owers that b JMPS overs that	19.19.15.18.17.18.19.29. r a lazy dog" Vac.9 dog' y dog' er the lazy dwart Lazy dwart.

Rutura 1.3

D.h

Name*		Rutaia	D. Nagve	ul Mohd. Khaja Moinuddin   DOB	10 - THNE - 2003 -
Sex*		Femal		Date of Admission	June 2003-
School/ College Na	me*	1002 0	aw college	Nature of Hand*	right
Writing Ski Lunguages	ill.	Englis	sh	Best Writing Skill	English
Class		BALLB	1st yeaz.	Level (Beginner/Lenser/Expert)	
	1.	Write 1 to	20 (1 to 10 with R	ight Hand 11 to 20 With Left	(Hard)
Right Hand	1	2 3	456	7 8 9 10 +	1 12 13 14 15 16 17 18 90
Left Hand	14 1	2 13	14 15 15	17 18 19 20	
1	2.	Write with	both hands "The q	puick brown fox jumps over	r a lazy dog'
Right Hand	0.00		0.000	uick brown fox jumps avec fore jump's over	
Hand Left	0.00		к высион	fore jamp's aver	
Hand Left	The The	. quic Iwic	к боошон К богошон	fose jamp's over	a lazy dogi ovaę o lazy dogi
Hand Left Hund Right	The The	equic Iwic Write with	K brown K brown hoth hands The g	fore jurnige's avec fore jurniges wick only gablin jumps on	a lazy dogi ovale o lazy dogi
Hand Left Hund Right Hand Left	The The	guic Juic Vrite with Guice	K brown K brown hoth hands The g	fore jurnige's avec fore jurniges wick only gablin jumps on	a lazy dog ovice is lazy dogi erthe bazy dwart over the lazy dwarf.
Hand Left Hand Right Hand Left	The The The The	quic Twic Twic Write with quice Quic	K brown K brown hoth hands The g	fore jurniges over fore jurniges nich onge goblin jurniges or goblin jurniges goblin jurnige	a lazy dog over a lazy dogi erthe bazy dwarf over the lazy dwarf.
Hand Left Hand Right Left Hand Right	The The The The	quid Twice Write with Quid Quid Write with C d	K brown K brown hothhands Theo K onyse K onyse K onyse K onyse K onyse K onyse	fore jurnep's over 1 fort jumps wich only goblin jumps on goblin jump's o 2 goblin jump 6 in small letters.	a lazy dog over a lazy dogi erthe bazy dwarf over the lazy dwarf.
Hand Left Hund Right Left Hand Right Right Hand	The The The The	quid Iwic Vrite with Quid Quid Write with	K brown K brown hoth hands Theos K onyse K onyse K onyse	fore jurnig's over fore jurnig's over nich once goblin jurnige goblin jurnige goblin jurnige t' in small letters.	a lazy dog" over in lazy dog) er the lazy dwarf over the lazy dwarf 'S DVCR the lazy dwarf





Name*	_	Aanuli PiteKAR	ui Mohd, Khaja Moiauddis DOB	(research denote) arth
Sex*		female	Date of Admission	
ichoul/ College N		M.Plow copye	Nature of Hand*	Right Hand
Writing S Language			Best Writing Skill	. 0
Class		B.AUB I	Level (Beginner/Lemen/Expert)	
	1.	Write I to 20 (1 to 10 with Ri	ight Hand 11 to 20 With Lef	t Hand)
Right Hand	12.	845678910111	2 13 14 15	
Left Hand	11	2 19 14 15 16 1	7 18 13 29	
	2	Write with both hands 'The u	wick brown fox jumps ove	r a lazy dog"
Right Hand	The	Write with both hands 'The q e quick brown	fox Jumps of	VEL a lozy dog'
	The	A 1 .	fox Jumps of	VEL a lozy dog'
Hand Left	The	e <i>quick brown</i> . quick brown Write with heath hands 'The a	fox Jumps or Fox Jumps ov	ver a lozy dog
Hand Left	The The	e quick brown quick brown Write with both hands 'The q	FOX JUMPS 0. FOX JOMPS OV Wich only goblin jumps on 90K1/32 IVMPS	ver a lozy dog ler a lozy dog er the lany dwarf over the lozi dua
Hand Left Hand Right	The The	e quick brown quick brown Write with both hands 'The q	FOX JUMPS 0. FOX JOMPS OV Wich only goblin jumps on 90K1/32 IVMPS	ver a lozy dog
Hand Left Hand Right Hand Left	77/ The 3 77/ 77/ 4	e quick brown Quick brown Write with both hands 'The q e quick onyx e quick onyx Write with both hands 'A to?	fox Jumps of Fox Jomps ov uich onyx gobilin jumps ov gobilin JUMPs gobilin JUMP gobilin JUMP	ver a lozy dog lor a lozy dog er the hozy dog over the lozy due over the lozy due
Hand Left Hand Right Hand Left	77/1 The 3 77/1 77/1 4 0 6	e quick brown Quick brown Write with both hands 'The q e quick onyx e quick onyx Write with both hands 'A to S G d E f GT H I	fox Jumps of Fox Jomps ov uich onyx gobilin jumps ov gobin JUMPs gobin JUMP Min small letters. I K I M R O J	ver a lozy dog ler a lozy dog er the lany dwarf over the lozt dua

Dernalt

Planal .

Name*

	Galagi	) 145 (j
Handwriting Sample collect Mr. Siddiq	ionfor-Completion of Res	earch Thesisin Ph.D. (Forentsic Science) by in (Research Scholar) 2018
Divya Bondebuche	DOB	21 september 2002
female	Date of Admission	

Sex*	female	Date of Admission	
School/ College Name*	M.P. Law . college	Nature of Hand*	Rîght
Writing Skill (Languages)		Best Writing Skill	
Class	BALLB-IIndyn,	Level (Beginner/Lemer/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1,2,3,4,5,6,7,8.9,20.
Left Hand	11,12,13,14,15,16.17,18,49,00

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick braun fax Jumps arrive a clary dog.
Left Hand	The quick brown fox John to aver a body dog.

	3. W	rite with bo	th hands 'Ti	he quick onyx	goblin jumps	over the lazy d	warf	
Right Hand	The	quick	anys	gablin	Jumps	ane th	lazy	devarez.
Left Hand	The	quick	onyx	gab lin	Jumps o	ves the	lazy	anay

4. Write with both hands "A to Z' in small letters. Right Hand  $A \cdot B, c, D, E, F, G_1, H, J, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z$ Left  $A \cdot D, c, D, S, F, G_1, H, J, J, K, L, M, N, O, P, Q, R, S, T, V, V, W, X, Y, Z$ Hand Hand

5. Signature with Left Hand





Name#	Sanket Ramesh Ramed	• Contract the design of the contract of the contract of the term of the property of the term of the property of the term of term o term of term of ter	in (Research Scholar) 2018 15/03/2-00-2-
Sex*	male	Date of Admission	1031000
School/ College Name	MarikChand Rahadl	Nature of Hand*	Right Hand
Writing Skill Länguages)	English	Best Writing Skill	0
Class	BA.LLB 2" Jar	Level (Beginner/Lerner/Expe	n)
	Write I to 20 (1 to 10 with Ri	ght Hand 11 to 20 With 1	Left Hand)
		Plan beneficiente a conservation and the shake a state and	14,15,16,19,18,19,20
Left Hand I	1, 12, 13, 14, 15	15.12.12.1	3,20
2	Write with both hands 'The q		
2.1111.10	re quick brown f		N. U
Left - Hand	The quick bri	own fox jun	or a loss a losy de
	Write with both hands 'The q		v
3			over the lazy dwarf
	he ellick only g	opur Junda	
Right Hand			Over the locit dwarf
Right Hand Left Hand		oblin Jamps	
Right Hand Left Hand T	Ne. gyickanyx 2 Write with both hands "A to 2	r in small letters.	

Banker.

Sourcer,



Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forensic Science) by Mr. Siddiqui Mohd. Khaja Moinuddin (Research Scholar) 2018

Name*	Athany R. Mihozolki	DOB	19 oct 2002
Sex*	riale	Date of Admission	and the second
School/ College Name*	MA LOW COLLEGE	Nature of Hand*	Right honded
Writing Skill (Languages)		Best Writing Skill	
Class	BALLB-2ndyn	Level (Beginner/Lerner/Expert)	

<ol> <li>Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Han</li> </ol>	(bnu	
-----------------------------------------------------------------------------------	------	--

Right Hand	1	2	8	4	5	6	7	8	9	10		
Right Hand Left Hand	11	12	à	13	14-	15	16	17	18	13	20	

# 2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick brown for sumps over a lary day
Left Hand	The quick brown Fax 1400 ps over a lazy day

	3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'
Right Hand	The quick onthe goblin sumps about the lary dwamp
Left Hand	The quick one gablin mores or so the last drant

Right Hand	a	Ь	C.	d	e	Ð	9	h	i	1	1<	L	[m]	N	0	PI	9	m	st	4.	Y 60 KY
Left Hand	Q	ь	c <	9	\$	9	47	í-1	J	4	L_	17	M	o't	4	S	*	2V	- Lar	×	YR

5. Signature with Left Hand



Attas

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	1		2		
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	6		9		
CAL	0	03	r	1.0	ŝ
U.N.I	V.	ΞŔ.	ŝ	19	14

Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forefair Science) by Mr. Siddiqui Mohd. Khaja Moinuddin (Research Scholar) 2018

Name*	Vaishnowi Kshirsogar	DOB	
Sex*	Female	Date of Admission	
School/ College Niene*	M.P. Low College, Aled	Nature of Hand*	Right
Writing Skill (Languages)		Best Writing Skill	4
Class		Level (Beginner/Lemer/Expert)	

1. Write I to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)	1.	Write I to 20 (1	to 10 with Right Hand	11 to 20 With Left Hand)
--------------------------------------------------------------------	----	------------------	-----------------------	--------------------------

Right Hand	1	2	3	4	5	6	т	8	9	10
Right Hand Left Hand	11	12	(3	片	15	16	17	8	19	2.0

2. Write with both hands 'The quick brown for jumps over a lazy dog'

Right Hand	"The quick brown for jumps over a lazy dog"	
Left Hend	"The quick brown for jumps over a large dog" "The quick brown for jumps over a large dog"	

3. Write with both hands 'The quici, onys goblin jumps over the large	dwarf+	
-----------------------------------------------------------------------	--------	--

Right Hand	The quick only goblin jumps over the lazy dwarf
Left Hand	The quick anya gablin jumps over the last dwarf
	<ol> <li>Write with both hands "A to Z' in small letters.</li> </ol>
Right Hand	ABCDEFGHIJKLMNOPPRSTUVWXYZ
Left	A ROAD CONTRACTOR NON AND AND AND AND AND AND AND AND AND AN

ABCDEFGHIJKLMNOPORSTUVWXYZ

18.1	Signific	o with	Leni	directed	

Hand





Name*	Gaherwor Yathrof	al Mohd, Khaja Melmuddin ( DOB	
Sex*	Male	Date of Admission	
School/ College Name*	M.P Law collage avrangebod	Nature of Hand*	Right hand
Writing Skill (Languages)	English	Best Writing Skill	
Class	BALLB and year	Level (Beginner/Lemer/Expert)	

2. Write with both hands 'The quick brown fox jumps over a lazy dog"

	the quick brown For Jumps over a lazy dog ,	
Left - Hand	The quick brown For Juncrougy A Jory day	
1.7.1.1.1.1	·	_

3. Write with both hands 'The quick onyx goblin jumps over the bazy dwarf'

	The duick	ondy a	10000	touthe	UNEN H	he lozy	alworf
Hand Left	The avic	In com	~ 9W	in a	HARE !	alt rollo	losy dant

4. Write with both hands 'A to Z' in small letters.

Right Hand	a, b, c, d, E, f, G, W, I, J, k, I, M, n, c, P, 9, r, S, T, U, V, W, X, Y, Z
Left	
Hand	の、ちょういろ、E、A、G、A、T、シャトセリ、MUSASA、P、P、A、E、C、U、V、MANT、)シンマ

5. Signature with Left Hand

140

Gash -



GALGOTIAS

Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forensic Science) by Mr. Siddiqui Mohd. Khaja Moinuddin (Research Scholar) 2018

Name*	Faizal Shaikh	DOB	
Sex*	Male	Date of Admission	
School/ College Name*	MPLE	Nature of Hand*	Right
Writing Skill (Languages)		Best Writing Skill	
Class	BALLIB II	Level (Beginner/Lemer/Expert)	

## 1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	123456789101121314151617181920
Right Hand Left Hand	123456789101112 1314 131617181920

## 2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick brown fix jumps over a lazy day
Left Hand	The guick brown for jumps over a laxy day

## 3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The quick only goblin jumps over the lazy dwarf
Left	The quick only & goblin jumps over the lazy dwarf
Hand	The quick only & goblin jumps over the lazy dwarf

4. Write with both hands 'A to Z' in small letters.

Right Hand	abcdefghijklmnoperstuvwxxz
Left Hand	abodefahijkimnoperstuvwezz -

5. Signature with Left Hand



Hundwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forensic Science) by Mr. Siddiqui Mohd. Khuja Moinuddin (Research Scholar) 2018

Name*	Clauge Bhaste	DOB	
Sex*	Male	Date of Admission	
School/ College Name*	M.P. Jaw College	Nature of Hand*	Right
Writing Skill (Langunges)		Best Writing Skill	10
Class	BARB = II	Level (Beginner/Lemer/Expert)	

Right Hand	1834567891011171	3 14 15 16 17 18
Left	1234567891071121314151	612481920

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

	The quick brown fox jumps Over a lazy dog	
Left Hand	The gaick brown fox jumps Over a lasy dag	

Right	The quick Onyx goblin jumps Over the lazy dworf.
Hand	
Left	The quick and goblin jumps Over the lazy dwarf

	<ol> <li>Write with both hands 'A te Z' in small letters.</li> </ol>
Right Hand	ABCDE FabcdefghijkIMNoPersituvwxyz
Left Hand	abcdefghijklmNopagnstuuwaxz

5. Signature with Left Hand



GALGOTIAS

Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forefice Science) by Mr. Siddiqui Mohd, Khaja Moinoddin (Research Scholar) 2018

Name*	Abriman Tribulan	DOB 04 10 2000	
Sex*	Male	Date of Admission	
Sebool/ College Name*	M.P.Law college Auronamod	Nature of Hand*	Riskt Hund.
Writing Skill (Languages)	English	Best Writing Skill	
Class	BAILLB ITYEST	Level (Basinner/Lemer/Expert)	

0.000	1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)
L Hano	1,2,3,4,5,6,7,8,9,10,11,12,13,4,15,16,17,18,19,20
Lefi Hand	いえ、ろ、日、日、日、日、ノ、ノノ、ロ、レ、日、日、日、日、日、日、日、日、日、日、日、日、日、日、日、日、日、日

2. Write with both hands "The quick brown for jumps over a lazy dog"

Right Hand	The awak brown fox jumps over a lazy dog"
Left	The quick brown fox jumps over a Lazy dog"
Hand	The quick brown Fox Jump Agar & 1930 Not

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The	quick	ontx	Jopin	jumis	overthe	1027 a work
Left Hand	The	· autok	2 KMAS	whin itu	oon ada	+ two look	Anna

4. Write with both hands 'A to Z* in small letters.

Right	and a, b, c, d, e, f, g, h, i J, k, L, m, n, o, P, q, a, s, +, u, v, w, x, y, z
113010	
Left Hand	
Hand	abridger, gridd and have a styright and

5. Signature with Left Hand

Account



Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forensic Science) by Mr. Siddiqui Mohd. Khaja Moinuddin (Research Scholar) 2018

Name*	Yash B- Mate	DOB	13 06 2001
Sex*	Flole	Date of Admission	
School/ College Name*	M.P. Law College	Nature of Hand*	White Hand
Writing Skill (Languages)		Best Writing Skill	
Class	BA.LL-B = 2+0 year	Level (Beginner/Lefner/Expert)	

1.	Write I	I to 20 (1 to	10 with Right Hand 11 to 20 With Left Hand)	

Right Hand	1	2	3	4	56	7	G	9	1	D			
Left Hand	11		12,	13	14	15	15	1	7	18	19	20	

## 2. Write with both hands "The quick brown fox jumps over a lazy dog"

Right Hand	The	quick	brown	fox	jumps jumps	OVOL	24	lay	909
Left Hand	The	quirk	brown	f=x	jump29	0422	Q	15	903

	3. W	rite with bo	th hands "Ti	he quick ony	x goblin ju	mps over	the lazy	dwarf"		
Right Hand	The	awd	e only:	e gobi	in juw	ps o	Nor	the	lazy	clwary
Left Hand	The.	7044	anyx	Bogu	lautra	0/22	76	× 103	× dwa	af

|--|

Right	abcdefghijklmnopgozstuvwxy2
Left	abcdefghijklmnopqustuvwxyz abcdefghijklmnopqustuvwxyz:

5. Signature with Left Hand

6. Signature with Right Hand

Binet

(	C	8
9AH	GO	TIAS

Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Foreisic Science) by Mr. Siddiqui Mohd. Khaja Moinuddin (Research Scholar) 2018

Name*	Ashvini Ramrao Jugian	DOB	27-08-2002
Sex*	Female	Date of Admission	
School/ College Name*	Manikchand Pahode Law College Amagun		Right hand
Writing Skill (Languages)		Best Writing Skill	
Class	BA-LLBII	Level (Beginner/Lemer/Expert)	F

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1.2.3.4.5.6.7.8.9.10
Left Hand	1,2,9,4,5,6,7,8,9.10

2. Write with both hands "The quick brown fox jumps over a lazy dog"

	The quick brown fox jumps over a lozy dog
Left Hand	The quick brown fox jumps ares a lary dog

3. Write with both hands "The quick onyx gobiin jumps over the lazy dwarf"

Right Hand	The quick only x goblin jumps over the lozy dword
Left Hand	The quick only goblin jumps over the lacy douats

4. Write with both hands 'A to Z' in small letters.

Right Hand	a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, T, u, v, w, x, tz
Left Hand	a.b.c.d.e.b.g.h.l.j.K.1.m.n.o.P.q.8,S.T.U.V.H.XX.Z

5. Signature with Left Hand

Azzaglap

		GALGERTIA Ionfor-Completion of Resear Mohd. Khuja Moinuddin	ch Thesisin Ph.D. (Forensic Science) by
Name*	Shuela Sundar	DOB	1210312002
Sex*	Female	Date of Admission	-
Sehool/ College Name*	Manikchand Pahade Jaw clg.	Nature of Hand*	Right hand.
Writing Skill (Languages)		Best Writing Skill	
Class	BALLESI-2nd 45	Level (Beginner/Lemer/Expert)	

Right Hand	1	2	ъ	4 6	6	Ŧ	8	٩	10	
Right Hand Left Hand	11	12	13	14	15	16	17	18	19	20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick brown fox jumps over a lazy dog
Left Hand	The quick brown Pax jumps over a lazy dog.

Right Hand	The quick only goblin jumps over the lazy dwarf.
Left Hand	The quick only gobin jumps over the loay dwarf

Hand	ABCDEFUHIJKLMNOPRRSTUNWXYZ
Left Hand	abcdefghijklmnoggrstuunkyz

5. Signature with Left Hard







Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forensic Science) by Mr. Siddiqui Mobd. Khaja Moinuddin (Research Scholar) 2018

ame*	Robit Malpani	DOB	
28*	Male	Date of Admission	
:hool/ ollege Name*	M.P. Low college, Awangabad	Nature of Hand*	Right
'riting Skill anguages)		Best Writing Skill	
lass	BALLB IInd (2 sen)	Level (Beginner/Lemer/Expert)	

	1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)	
Right Hand	1.2.3,4,5,6,7,8,9,10.	
Left Hand	11, 12, 13-14, 15, 26, 17, 18, 19, 20.	

## 2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick brown fox jumps over a lazy dog.	
Left Hand	The quick brown for jumps over a large day.	

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

Right Hand	The	quick	onyx	Boplin	jumps	over the los	ly clawarf.
Left Hand	The	drift	ornitest	goblin	Jamps	over the locat	dworf

_	<ol> <li>Write with both hands 'A to Z' in small letters.</li> </ol>
Right Hand	a, b, c, d, e, f, g, h, i, j, k, 1, m, n, o, P, q, r, s, t, u, v, w, x, y, z
Left Hand	a, b, c, d, o, f, g, h, i, j, k, Lond, P, 9, r, s, t, u, u, u, x, z, z

5. Signature with Left Hand



Hundwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forensic Science) by Mr. Siddiqui Mohd. Khuja Moinuddin (Research Scholar) 2018

Name*	Nikhil Ganawang	DOB	
Sex*	MAIR	Date of Admission	
School/ College Name*	College, Albod.	Nature of Hand*	Right
Writing Skill (Languages)		Best Writing Skill	3
Class	B.A. LLB II	Level (Beginner/Lemer/Expert)	

## 1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	
Left	11,12,13,14, 15,16,17,18,19,20	

## 2. Write with both hands "The quick brown fex jumps over a lazy dog"

Right Hand	The	quick	brown	Fox Jumps	OVET	a	1024	dog'
Left Hand	The	quit	K. broo	IN Fox JAMAS	SV(J	6	1029	qog?

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The quick only goblin jumps over the lozy dworf!
Left	The quick only goblin jumps over the lozy dworf!
Hand	The quick only gold in Jumps over the lozy dwarf!

Hand	a, b, e, F, g, h, i, j, k, l, m, h, P, A, F, s, t, U, V, W, X, Y, Z.
Left Hand	appropriate the the product of the interview of the

5. Signature with Left Hand







TIAS

Handwriting Sample collection for Completion of Research Thesisin Ph.D. (Forefisic Science) by Mr. Siddiqui Mohd. Khaja Moinuddin (Research Scholar) 2018

Name*	Sakshi Romin	DOB	25 12 12002
Sex*	Female	Date of Admission	
School/ College Name*	Manikchande Panade	Nature of Hand*	Right.
Writing Skill (Languages)		Best Writing Skill	
Class	B.A.LL.B-II	Level (Beginner/Lemer/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1,2,3,4,5,6,7,8,9,10
Left Hand	1,2,3,4,5,6,7,8,9,10

2. Write with both hands "The quick brown fox jumps over a lazy dog"

Right Hand	The quick	nward	i xoq	mps	overa	1924	dog .	
Left Hand	The quick The quick	break f	Bre jumes	OVE	r a hey	dog	à	

_	3. Write with both hands	'The quick	onyx goblin j	umps over	r the lazy	dwarf	
Right Hand	The quick onyx	goblin	jumps	over	the	(१२५)	dunof.
Left Hand	THE QUICK ONLY 9	oblich ju	AS OVER	the	1934	duq	sf.

4. Write with both hands 'A to Z' in small letters.

Right Hand	a. b. c. d. e. f. s. h. 1, 3, K. L. m, h. o. P. 9, 8, 5, t. v. v
Left Hand	a, b, c, d, e, f, s, h, i, j, K, L, m, h, o, P, 9, 8, 5, t, v, v w, x, 3, 2. a, b, c, d, e, f, 9, h, i, j, K, L, m, h, o, P, 9, 8, 0, v, v, y, y, z

5. Signature with Left Hand



Sex#	Nikhil T. Defore	DOB	17 10 0
	Male	Date of Admission	17-12-2001
settool/ College Name*	Markchand Black	Nature of Hand*	Right hands
Vriting Skill Langunges)	English	Best Writing Skill	
lass	BALL B rody	Level (Beginner/Lemer/Espen)	
1.	Write 1 to 20 (1 to 10 with 1	light Hand 11 to 20 With Left	Handl
Right			, 14, 15, 16, 17, 18, 19, 20.
Hand	creation and the state of the second of the	the start of the second st	
Hand	1,2,3.4.5.6.	7.8.9.10,11.12,	13,14,15,16,17.18,19,20
1.0		10.00	
Pall K a line in the second		quick brown fox jumps over	
Hand	The Quick brown I	one Jumps over a laz	y dog,
Hand	the Antry Drown	n fox jump on	es a mazy was
		quick onyx goblin Jumps ave	
Hand T	e quick only a goblin	i jumps over the b	zy dwart.
and the second se			/
Hand 9	hequicks only	1. gobin over t	he last dwarf '
	and have a second second second		
Right A	Write with both hands 'A to	Z' in small letters.	111212
land P	bcdetghijk	Mnopgystuv	ways
A	bedetghi	1 m nopphs.	+UNWXYZ
Hand A	A 4	11	/~
Hand A			
Hand A	Signature with Left Houd	<ol> <li>Consistence with Print</li> </ol>	abs Mand
Hand A	Signature with Left Hand	6. Signature with Rig	ght Hand

1	÷.,		λ.
ε.	- 6	-	
ъ.		- 2	
16	100	60	

GALGARIAS

Handwriting Sample collection for Completion of Research Thesisin Ph.D. (Forefile: Science) by Mr. Siddiqui M.dtd. Khaja Mointaddin (Research Scholar) 2018

Name*	Harsha Rout	DOB	
Sex*	Temale	Date of Admission	
School/ College Name*	M.P. Low cig	Nature of Hand*	Right
Writing Skill (Languages)		Best Writing Skill	
Class	BALLBILYE	Level (Beginner/Lemen/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20
Left Hand	AL 234557831011212121214 15 1617 1929-20

2. Write with both hands "The quick brown fox jumps over a lary dog"

Right Hand	The	quick	pisonu	fox	iumps	GVens	3.	lazy	dag		
Left Hand	The	- Mulch	breawn : brenun	for	changes	Dree	6	las	ss d	Pa	

3. Write with both land: "The quick onyx gobils jumps over the lary dwarf"

Hand	The	quick	xpno	goblin	jumps	overt	He	lazy a	lwaif
Left Hand	The	<i>quide</i>	UNX	goblin goblin	1 jum	the bu	em -}	ha (92	t.

4. Write with both hands '6. to Z' in small letters.

Right Hand	P.	ß	с	D	E	£	G	Н	T	2	к	-1	Μ	NOPBRSTUNWXYZ
Left Hand	A	B	32	O	Ē	F	9	Н	£	2	ĸ	1	M	NOPBRSTUNWXYZ NOPBRSTUNWXYZ

5. Signature with Left Hand

TPEart



Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forensic Science) by Mr. Siddiqui Mohd. Khaja Moinuddin (Research Scholar) 2018

Name*	KATLAS TOAHT	DOB	14-08-1999
Sex*	Male	Date of Admission	-
School/ College Name*	M.P. law college	Nature of Hand*	Right
Writing Skill (Languages)	0-	Best Writing Skill	
Class	BALLB. TL	Level (Beginner/Lerner/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1	2	3	4	5	6	٦	8	9	10	
Right Hand Left Hand	11	12.	131	41	stc	17	1	8	9 5	ġ.	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The	quick	promu	fox	jumps	over	a lazy dog
Left Hand	The	quick	brown	Fax	jumps are	r n lazi	4 202

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The	quick	ony×	goblir	jum P3	over the	luzy
Left Hand	The	quick	ONYX (	At bin J	umps ave	or the lover	anat.

4. Write with both hands 'A to Z' in small letters,

Right Hand	ABCDEFANIJKEMNOPARSTURWAYZ
Left Hand	ABED = FISHISKLANOPARSTUVHKYZ.

5. Signature with Left Hand



+	-30	sni.	-	



Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forensic Science) by Mr. Siddioui Mobd. Khala Moinuddin (Research Scholar) 2018

Name*	Yash Prakuch Barasan	DOB	01-05-2002
Sex*	Male	Date of Admission	
School/ College Name*	Platitichand Pahade two Collage, Adtamabad	Nature of Hand*	Right
Writing Skill (Languages)		Best Writing Skill	
Class	B.A.CLIB Second years	Level (Beginner/Lemer/Expert)	

1. Write I to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Hand	1	2	3	4	50	6 7	8	٩	10
Left Hand	30	13.	13	14	15	16	17	13	18 20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The	quick	brown	-fo	x jui	mps	ONC'S	a 10	aloc	ŕ	
Left Hand	The	quick-	wran w	fax	JUTRE	Orlin	a	IRAY	dig		

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right	The a	wick o	nyx qol	stin jum	p3 0.04	r the	law	( dwo	erf	
Left Hand	The	artick	nyx qol	opolation	jamps	()/ha	THE	lasy	ducof	

4. Write with both hands 'A to Z' in small letters.

Right	A	В	C	D	é.	£.	G	н	1	T	*	4	t*1	14	0	6	Q.	RSTUNWXYZ
Hand													-154	127	2	1.24	~	WIN WO
Left	A	81	C 1	1.5	- 4	74	Τ.	5	K. 1	61	N	0	Pa	1	2.1	10	2.3	WXYZ
Hand	1																	

5. Signature with Left Hand

#### 6, Signature with Right Hand

Y. P. Basastar

4. P. Basaskar

10.1

		Handwriting Sample collec Mr. Siddi	GALCET/ BALCET/ Honfor-Completion of Resea pul Mahd, Kinaja Moinaddin	rch Thesisin Ph.D. (Forefair Science) h
Name*		Adnyo & Ban	DOB	05 - 10 - 2002.
Sex*		Female	Date of Admission	
School/ College N	lume*	Murangabad	Nature of Hand*	Right Hond
Vriting Skill Languages)			Best Writing Skill	
Class		BA-LLB II-year	Level (Beginner/Lemer/Expert)	
	. i.	Write 1 to 20 (1 to 10 with B	light Hand 11 to 20 With Left	(Harid)
Right Hand	1,1	2,3,4,5,6,7,	8,9,10,	
Left Hand	11		8,19,20.	
			quicl, brown fox jumps over	r a lazy dog"
Right Hand	1		e jumps over a la	We do that the second

Hand	The	quick	brown	Food Jumps	over	a	1924	dog .
Left Hand	The	quick	brown	Fox Jumps Fox Jumps	1510	0	102	don .

3. Write with both hands 'The quick onys goblin jumps over the lazy dy-	ieP
-------------------------------------------------------------------------	-----

Hand	The	quick	Onyx	gabhin	jumps	over the	1024	dwork -	
1.60									

Hand The quick any + Joblins rumps over the losy detart.

	4. Write with both hands 'A to Z* in small letters.
Right Hand	$\mathbf{R}$ , $\mathbf{B}$ , $\mathbf{c}$ , $\mathbf{d}$ , $\mathbf{E}$ , $\mathbf{F}$ , $\mathbf{g}$ , $\mathbf{h}$ , $\mathbf{i}$ , $\mathbf{j}$ , $\mathbf{k}$ , $\mathbf{l}$ , $\mathbf{m}$ , $\mathbf{n}$ , $\mathbf{o}$ , $\mathbf{P}$ , $\mathbf{q}$ , $\mathbf{r}$ , $\mathbf{s}$ , $\mathbf{t}$ , $\mathbf{u}$ , $\mathbf{w}$ , $\mathbf{Y}$ , $\geq$
Left Hund	a.b.c.d.e.F.g.it.i.j.k.l.m.m.o.F.g.rs,t. UNY.Y.Z.

5. Signature with Left Hand

Awya

G	- 5	e	in.	1	5	
	- 6	ŝ	U	5	ā,	
		9	ġ,	ø	y	

Handwriting Sample collection for-Completion of Research Thesisin Ph.D. (Forensic Science) by Mr. Siddiqui Mohd. Khaja Moinuddin (Research Scholar) 2018

Name*	Kingn Shevone	DOB	17-06-2022
Sex*	Male	Date of Admission	The second second
School/ College Name*	M.P. law contege.	Nature of Hand*	Right Hand.
Writing Skill (Languages)		Best Writing Skill	
Class	BALLBIT	Level (Beginner/Lemer/Expert)	

A 0.								a state of the second s
23	45	6	189	310	11	12 13	1415	1617181920
0.000.000	1.1.1.1.1.1.1.1		Dependence	50.0350				1 Strategy of the protect
20	1. 1	0 -	705	OL F	11	17 13	74 / 5	16 17 08 19 10
	28	2845	284567	2845678	2845678310	28456783101	2845678310111213	23456789101112131415

2. Write with both hands "The quick brown fox jumps over a lazy dog"

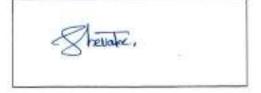
Right Hand	The	quick	brown	fox	Jumps	over	đ	10124	dog'
Left Hand	The	e quick	6xeun	Fox.	JUMPS	OVEr	q	hazy	dog;

Right Hand	The quick only					
Left Hand	The guick only	Soplan	JUMPS OVER	the	INZY	duart

	4. Write with both hands 'A to Z' in small letters.
Right Hand	ABCDEFGHIJKLMNOPORSTUVWXYZ. ABCDEFGHIJKLMNOPORSTUVWXYZ.
Left Hand	ABODEFORMUNAREIT

5. Signature with Left Hand

Sholate



		GALGOTH GALGOTH anfor-Completion of Resear i Mohd. Khaja Moinaddin (	ch Thesisin Ph.D. (Forefisic Science) by
Name*	Sumedly T. Gredeker	DOB	23/08/2002
Sex*	Male	Date of Admission	
School/ College Name*	Manikehand Pahade Law Callege, Awangabad		
Writing Skill (Languages)		Best Writing Skill	
Class		Level (Beginner/Lemer/Expert)	

1	Vrite 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)	
	the state of the state state state and the state state state state of the state state of the state state of the state state of the stat	_

Right	1.2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20.
Hand	
Left	1) 3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20.
Hand	The fait has a state of the state has first

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick brown from Jumes over a Jorgy dog'	
Left Hand	"The suick brown for junts over a largy deg	

	<ol><li>Write with both hands "The quick onya goblin jumps over the lazy dwarf"</li></ol>
Right	The quick oner gohin junes over the large duark'

Hand			ander Jermin						
Left Hand	'The	Suice.	anyoc Sobin	jumes	over	the	Logy	durif	

	4. Write with both hands 'A to Z' in small letters.
Right	a.b.c.sd.e,f.g,h,i,j.K,1, m.n, o.P.a.z, s.t.u.V,w,x,y,z.
Hand	a.b.c.d.e.b.g.h.i.j, K.L.M.n.P.g.r.s, t. 9. KW, XJ-8-
Hand	a.p.c.a.e.b. J.h. 1. J. K. L. M. H. H. T. T. M. S. M. S. M. M. M. S.

5. Signature with Left Hand

8-gelokari

S. gederour



# GALGATIAS

Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forensic Science) by Mr. Siddiqui Mohd. Khaja Moinuddin (Research Scholar) 2018

Name*	Mase V. Navgiere	DOB	08-03-2003
Sex*	Male	Date of Admission	
School/ College Name*	M.P. law collage	Nature of Hand*	Right hand
Writing Skill (Languages)		Best Writing Skill	
Class	BAILLA - 2nd year	Level (Beginner/Lerner/Expert)	

	1.	Write I	to 20 (1	ю	10 with Right	Hand H	to 20 With	h Left Hand)	
-		PTTDYS A		-	re men reigni	A street Part in it	10 442 17 10	a second a reserve y	_

Right Hand	12345678910	
Left Hand	12345678920	

### 2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick brown for jumps over a lazy dog!
Left	The quick brown for jumps over a lazy dog!
Hand	The quick brown the Parmager over lazy day?

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	"The quick on you jumps over the lazy alward?
Left Hand	"The quick on you jumps over the lazy dwarf? The quick any jumps over the lazy dwarf? The quick any jumps over the lazy dwarf?

Right	A B CD E FG HIJKLMNOPQRSTUVWXYZ
Hand Left	RECORFGUIDTKLINNER & RETURN
Hand	WKV Z

5. Signature with Left Hand

M. Nounpap

	4e-		
Nonz	10		
	. Nowig	. Norveine	Nongine



Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forensic Science) by Mr. Siddiqui Mohd. Khaja Moinuddin (Research Scholar) 2018

Name*	ROHAN ASIMKYA	DOB 17/07/2002	,
Sex*	Male	Date of Admission	
School/ College Name*	M.P. Law College	Nature of Hand*	Right hend
Writing Skill (Languages)		Best Writing Skill	
Class	B-ALLB IIndyea	Level (Beginner/Lerner/Expert)	

		I.	Write I to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)	r.
--	--	----	-----------------------------------------------------------------	----

	1				\$		7	8	2	10
Left Hand	1	2	З	4	L	G	7	3	2	10

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	LThe	quick	PYONU	fox	Samps	over	a ha	59 9031
Left Hand	The	quick	byann	for	Junt	S ONE	x a	27 209 1 Lazy dog

Right Hand	LThe	quick	onyx	Seplin	Swald	2220	the	heapters
Left Hand	- The	quick	Sceno	Soblin	Junp	ova	the	Lozy dum

Right Hand	LABCDEEC	ZHA	K LMN O PARSTI
Left Hand	YWXYZ HA	SKUNTO	PARSTUNIVXZ

5. Signature with Left Hand

R.D.A.Jink



Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forensic Science) by Mr. Siddiqui Mohd. Khaja Moinuddin (Research Scholar) 2018

and the second se	17745 3414944	a research receipt representation.	(respectively sterious) and the
Name*	Kisher larman Sasan	DOB	11Nov 12001
Sex*	Male	Date of Admission	2.02.0
School/ College Name*	M-BlawCollege	Nature of Hand*	Right
Writing Skill (Languages)	English	Best Writing Skill	
Class	BA-LL-B-JIndycor	Level (Beginner/Lerner/Expert)	Beginner

Right Hand	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	
Left Hand	10,12,013,14,0 15,16, 17, 18, 19,20	

		th both hands "							
Right	The quick	brown	fox ju	mps	over	al	az.y	dog.	
manu	the Com	1	Paul	NA DAL	00 Dr	in the		lant	daa

Hand	Inc desce		The la		on arres	0	, 0	1
Left Hand	The quick	prown	tex	dumps	Over:	٩	lazy	dog.

Right	The quick onyx	goblin	jumps	over	the l	azy driver
Left	The quick onlyx The quick both	ight got	s(in jun	vibs o	ver the	ne. 1924

4. Write with both hands 'A to Z' in small letters.

Right Hand	A3B3 C3D3 E3 F3 G3 H3 #3 J3 K3 43 M3 N3 03 P3 Q3 R, S, T3 U3 Y3 W3 X3 Z
Left Hand	A、B、C、D、E、B、G、H、キッチ、K、S、M、N、O、B、B、R、S、T、US、WS、B、E A、B、S、B、E、B、H、チ、J、K、S、M、N、O、D、B、B、R、S、T、US、WS、B、E A、B、S、B、E、B、B、H、J、J、K、S、M、NO、D、P、R、S、T、US、WS、B、E A、B、S、B、E、B、B、B、B、B、B、B、B、B、B、B、B、B、B、B、B

5. Signature with Left Hand

YGasanz.

Kasane



Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forensic Science) by Mr. Siddigui Mohd, Khaja Moinuddin (Research Scholar) 2018

Name*	GOULT SUTESH HAM	DOB	04/01/2003
Sex*	SIDM	Date of Admission	
School/ College Name*	M.P. law college	Nature of Hand*	Right
Writing Skill (Languages)	English	Best Writing Skill	A COM AND A
Class	BA-LLB III	Level (Beginner/Lemen/Expert)	Lesher

Right Hand	1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)	
Left Hand	11, 12, 13, 14, 15, 16, 17, 18, 19, 20	

## 2. Write with both hands 'The quick brown fex jumps over a lazy dog'

Right Hand	The	quict	bacuum (	200 50	mps ove	era laz	806 K	
Left Hand	ナカモ	quick	brown	Â9X.	JUMES	aves a	lazy	80 6

#### 3. Write with both hands "The quick once goblin jumps over the lazy dwarf" Right The quick onex goblin sumps over the lazy dwarf Hand Left

Hand	The	JUICH	SEXX	Soplin	SUMPS.	DUCA	the	1027	Juion
	a second the	THE THE REAL TO - 1							

Right Hand	A.B.C.D.E.F.C.H, J.J.K.L. M.H.D.P.J.J.S.L.W.W
Left Hand	A.B.C.O.E.F.Q.H. I.J.K.L.M. N.O.P.T. & SIL.V.V.

#### 5. Signature with Left Hand







Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forensic Science) by Mr. Siddiqui Mohd. Khaja Moinuddin (Research Scholar) 2018

Name*	Apprimentin Skind	DOB	04-04-2001
Sex*	Mali	Date of Admission	29-04-22
School/ College Name*	M. P. Law- College Abort	Nature of Hand*	
Writing Skill (Languages)		Best Writing Skill	
Class	BALLB-IL	Level (Beginner/Lerner/Expert)	

2.1	and a second				
1.	Write 1 to 20 (1)	o 10 with Right	Hand 11 to 20	With Left Hand)	

Right Hand	1	2	3	4	5	6	7	8	9	10		
Right Hand Left Hand	11	12	13	14	15	16	17	1	8	13	20	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The	quick	brown	fox	Jumps	BOAN	A	lagy dog.
Left Hand	The.	quich	breakers	forc	jumps	94497	۵.	logy dog

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

Right Hand	The	quick	onyx	geblin	filmps	oven	Du	lazy	dwarf.	
Left Hand	Th	e quic	h ony	sir polu	hin ju	mpe	0467	the	i dwaaf. Norge Ju	wh

Right Hand	a	b x	C.L	2															
Left	0		ີ	d-	е.	F	2	h	1-	1-	k	7	, n	5	3	- 1	A . a	19	Ð

5. Signature with Left Hand

Alinda

		5	
	Handwriting Sample collec Mr. Siddi	다가오다 Stonfur-Completion of Rese gui Mohd, Khaja Monuddir	arch Thesisin Ph.D. (Foreficie Science) by
Name*	swash Naybal	DOB	
Sex*	Male	Date of Admission	
School/ College Name*	M.P. LOW colled	Nature of Hand*	
Writing Skill (Languages)	mp. an ang	Best Writing Skill	
Class		Level (Beginner/Lemer/Expert)	
1	Write 1 for 20 (1 m 10 with 8	light Hand 11 to 20 With Le	ft Hand)
Left Hand 1, 3 Right Hand Me	Write with both hands "The - 941 C/K BEOCOP	71819110, quick brown for jumps ov 7 POX dumfs of	11/12/13/14/15
The Local Contract of	Write with both hands 'The	the second se	
Hand The	e ayick beaw	honyx dobli	h jum/s over the
Hand The	auick only ac	oblin dumps e	over the lazy dwar
4	Write with both hands 'A to	Z* in small letters.	
Right Hand	+02	e, eaver a cline web, each earer	
A hand	+02		

- 5. Signature with Left Hand
- 6. Signature with Right Hand





Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forensic Science) by Mr. Siddiqui Mohd. Khaja Moinaddin (Research Scholar) 2018

Name*	Dalve Uttakshemath	DOB		1
Sex*	Mole	Dute of Admission		1
School/ College Name*	m. D. Jain college	Nature of Hand*	right	
Writing Skill (Languages)		Best Writing Skill		
Class		Level (Beginner/Lerner/Expert)		

1. Write I to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Hand	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20.
Left Hand	1.2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick	10000	Foæjumps Dæjumps	over a	LOZY C	log
Left Hand	The Quick	brown f	oæ jumps	overa	bzy a	109.

3/ Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right	The avick onve govinjump	s over	the lozy	duporef
Left	The avick onvægoblin jumps			
Hand	THE PARCE ONAL BORNIN JUNDS	OVEE	the lazy	r dupast

4. Write with both hands 'A to Z' in small letters.

Right Hand	A-BCDEFOH	Z
Left	10-2	

5. Signature with Left Hand

College No		Vijou S. Aute	DOB	
School/ College N: Writing Sk		Vijoy S. Aute Molt	Duic of Admission	100
Writing Sk		M.P. law college	Nature of Hand*	Right.
			Best Writing Skill	- Jos
Liniguage Class	s)		Level (Beginner/Lemer/Expert)	NS
	1.	Write I to 20 (1 to 10 with R	ight Hand 11 to 20 With Left	Flund)
Right	1.	2, 3, 4, 5, 6, 7	8, 9, 10, 11, 12, 13	3, 14, 15, 16, 17, 18, 19,20
Hand Left	1.0			
Hand	11	ア、ヨーサーミンモッテ	見了,10,11,12,13,	19,15,16,17,15,19,20.
		/		
The last of			quick brown fox jumps over	
Right Hand	Th	e quick beawn	for Jumps ou	ier a lazy dog.
Left				
Hand	21	the fact a dore a	nono dombe D	vere a long dags
Disht			quick onys goblin jumps eve	
Right Hand	T	ie quick only a	goblin Jumps	over the lary due
Left	-	Auto Ba	hable Tomos	over the by Swarp
Hand		the shorter offer	Bonn / Mulau	
		, ,		
		Write with both hands 'A to		A
Diaht			(BANNO PARST	
Right Hand		THM 69.200	IRLMNDS	ARSTEMAND
Right Hand Left	-		a trans	AN CHILL
Hand	-	and allower 10		1
Hand Left	-	eneration 15		
Hand Left	1	ų ,		
Hand Left	1	Signature with Left Hand	6. Signature with R	ight Hand
Hand Left	1	ų ,		ight Hand
Hand Left	1	ų ,		ight Hand
Hand Left	1	ų ,		ight stand
Hand Left	1	ų ,		igne stand

		GALGOT	LAS ST
	Handwriting Sample collect Mr. Siddig	ionfor-Completion of Re-	is a search Thesisin Ph.D. (Forenade Science) by in (Research Scholar) 2018
Name*	Agay P. Sanap	DOB	
Sex*	Male.	Date of Admission	
School/ College Name	54 5 L	Noture of Hand*	Right.
Writing Skill Languages)		Best Writing Skill	0.0
Class		Level	
	1	(Beginner/Lemer/Exper	9.1
25.2 4	Write 1 to 20 (1 to 10 with Ri	We work at the second state and the second state and	
Hand	1.2.3.4.5.6	789 10 11	12 13 14 15 16 17 19 19
TRANC			
Left	172100-0		10 1.1
Left Hand	12315678	1910111	213 14-15 16 17 151
			2 (3 14)5 10 17 151
2	Vrite with both kands. The q		
2	Write with both kands "The q	uick brown for jumps o	
Right Hand	Write with both hands "The q	uich brown for jumps o For Swimps	overs a larzy dog.
Right Hand Left	Write with both hands "The q	uich brown for jumps o For Swimps	ver a lary dog"
Right Hand Left Hand	Write with both hands "The q	uich brown for jumps o For Swamps wh For Ju	overs a lazy dog. mys aver a lazy dog.
Right Hand Left Hand 3	Write with both hands "The g he guicek brown The guicek brown Write with both hands "The g	uich brown fos jumpi o Fos Swangs wh Fos 's u uich onys gobiin jumpi	overs a lazy dog. mys aver a lazy dog.
Right Hand J Left Hand J Right Hand J Left Hand J	Write with both hands "The g he guicek brown The guicek bro Write with both hands "The g he guick oys g	uich brown for jumps o For Swangs wh For Swa nich onys goblin jumps loblin Jumps o	ever the lazy dwarf.
Right Hand J Hand J Right 3 Right 5	Write with both hands "The g he guicek brown The guicek bro Write with both hands "The g he guick oys g	uich brown for jumps o For Swangs wh For Swa nich onys goblin jumps loblin Jumps o	overs a lazy deg. -MIS aver a lazy deg ever the lazy dwarf
Right Hand Left Hand Sight Hand Left Hand	Write with both hands "The g he guicek brown The guicek bro Write with both hands "The g he guick oys g	uich brown for jumps o For Swamps wh For 's w wich only gobilin jumps loblin Ywamps o goblin Swamps	ever the lazy dwarf.
Right Hand J Left Hand J Right Hand Left Hand 4 Right Hand 4	Write with both hands "The g he guicek brown The guicek bro Write with both hands "The g he guick app g he guick arryx	uich brown for jumps o For Swamps wh For 's w wich only gobilin jumps loblin Ywamps o goblin Swamps	ever the lazy dwarf.
Right Hand Left Hand Sight Hand Left Hand Hand 4	Write with both hands "The g he guick brown The guick brown Write with both hands "The g he guick age g he guick are g he guick are g	uich brown for jumps o For Swamps wh For 's w wich only gobilin jumps loblin Ywamps o goblin Swamps	ever the lazy dwarf.

- 5. Signature with Left Hand
- 6. Signature with Right Hand



....

Names	and the second se	ui Mohd, Khuja Moinudd I DOB	lin (Research Scholar) 2018
Sex*	Santosh Mhetre	Date of Admission	18/11/2000
School/ College N		Nature of Hand*	Might
Writing SI (Language		Best Writing Skill	
Class	BALLE T	Level (Beginner/Lemet/Exper-	ev.
Right	1. Write 1 to 20 (1 to 10 with Ri	A second second second second second second second second	
Hand	1,2,3,24, 5, 6, 4, 8, 9,		
Left	We BALE 6 mas	En aut	
Hand	·新田市中国 电上台	13 10	
			wer a lazy der'
	2. Write with both hands 'The q	uick brown fox jumps o	meratazy dog' KMPS OVEr a lazz dog
Hand Right	2. Write with both hands The g	uich brown fos jumps o sharp fos Ju	umps over a lazz dog
Hand Right Hand Left Hand	2. Write with both hands The g	uick brown fos jumps o sham fox Jo Shan fox Jo	umps over a lazz dog Jumps Ollov a hig
Hand Right Hand Left	2. Write with both hands The q <b>ASE</b> , The Quick bo The Fulck both 3. Write with both hands 'The q	uick brown fos jumps o swm Fox Ju D S Fox D S Fox uick onys goblin jumps	umps over a lazz dog Jumps Ollov a hig
Hand Right Hand Left Hand Right	2. Write with both hands The g <b>ASE</b> , The Quick boo The Fulck both 3. Write with both hands The g The Quick on 3x 3 obt	uich brown fos jumps o own Fox Ju D Jumps Fox uich onys goblin jumps in Jumps ove	nmes over a lazz dog Dannes Ollov a hig over the lazy dwart
Hand Right Hand Left Hand Right Hand Left	2. Write with both hands The g <b>ASE</b> , The Quick boo The Fulck both 3. Write with both hands The g The Quick on 3x 3 obt	uick brown fos jumps o own Fox Jo Shun Fox Shun Fox uick onyx goblin jumps in Jumps ove Soblis	Amps over a lazz dog JULYOBS OVON ON HAS over the lazz duarf 28 the lazz duarf
Hand Right Hand Left Hand Right Hand Left	2. Write with both hands The q <b>F.E.</b> The Quick box The Fulce box 3. Write with both hands 'The q The Quick on 3x 3 obt The QUICE On y K 4. Write with both hands 'A to 7	uick brown fos jumps o Swap Fox 20 Shari Fox uick onyx goblin jumps in Jumps ove Salalis Salalis tin small lettern.	Amps over a lazz dog JULYOBS OVON ON HAS over the lazz duarf 28 the lazz duarf

5. Signature with Left Hand

n.en	-1-	
Some	252	
	South	Bontos D

Junio



Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forensic Science) by Mr. Siddiqui Mohd. Khaja Moinuddin (Research Scholar) 2018

Distance and	1100	an ranna rannan	(normal sentim / 2018
Name*	TIMMER & JAYSHAYE	DOB	00/03/2003
Sex*	Male	Date of Admission	
School/ College Name*	MP Low , rollinge. Ausongabad	Nature of Hand*	SDignet bornel
Writing Skill (Languages)	Crowers marching	Best Writing Skill	
Class		Level (Beginner/Lemen/Expert)	

1	0	Write I	to 20 (1	to	10 with Right Hand	11 to 20	With Left Hand)
			20,000.51		and the second second a second		TT THE SECOND CONTRACTOR

Right Hand	1,2,3,4,5,6,7,8,9,10	
Left Hand	11, 12 13 K 15 18 12 18 13 20	

### 2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The	quick	pronoag	for	jumpo	over	a rosh god.
Left Hand	The	quick	peonad	7025	SAMARS	OVER.	a sazy dog.

#### 3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The quick only e	globlin jumps over the lary dworf.
Left Hand	The guick onlyse,	Sellin anops one the lass dulast

4. Write with both hands 'A to Z' in small letters.

Right Hand	A BCDEFGHIJKL MNO PORSTUDIOXYZ
Left Hand	ASCREFENT JALMNO PORSTUNXYZ.

5. Signature with Left Hand

			GALGOTIA initia-Completion of Resear al Mobil, Kinga Molmuddin (	ch Thesisin Ph.D. (Forenisic Science) b
Name*		Departing Diamania	DOB	
Sex*		male	Dute of Admission	
School/ College Na	ame*	WA IAN Collage	Nmure of Hand*	Right, I-oft
Writing Sk Language			Best Writing Skill	
Class		B.A.LI.BIH Year	Level (Beginner/Lenter/Espert)	
Right Hand Left Hand	11	Write I to 20 (1 to 10 with Ri 2,3,4,5,6 ,12,13,14,	1 7,8, 9,10	9
Hand Left Hand	1 4 1/ 2.	2,3,4,5,6 ,12,13,14, Write with both hands 'The g	i 7 ، 8 ، 9 ، 10 ارتا رقا رقا ، uick brown fox jumps over	18, 19-20 a lezy deg'
Hand Left	1 4 1/ 2.	2,3,4,5,6 ,12,13,14, Write with both hands 'The g	i 7 ، 8 ، 9 ، 10 ارتا رقا رقا ، uick brown fox jumps over	18,19-20
Hand Left Hand Right Hand	11 1/ 2 T	2,3,4,5,6 ,12,13,14, Write with both hands 'The g	1, 7, 8, 9, 10 1, 5, 16, 17, uick brown fox jumps over an for jumps	18, 19-20 a lezy deg'
Hand Left Hand Right Hand	11 1/ 2 T 7 0 1	2,3,4,5,6 ,12,13,14, Write with both hands 'The g ne quick book e quick book Write with both hands 'The g	in 7, 18, 9, 10 15, 16, 17, uick brown fox jumps over on for jumps for jumps or tor jumps or	18, 19-20 a leasy des' 5 ovor a lazy dag' Ungor I 1824 dag' er the basy dwarf
Hand Left Hand Right Hand	11 1/ 2 T 7 0 1	2,3,4,5,6 ,12,13,14, Write with both hands 'The g ne quick book e quick book Write with both hands 'The g	in 7, 18, 9, 10 15, 16, 17, uick brown fox jumps over on for jumps for jumps or tor jumps or	18, 19-20 alexides' 5 ovor a lozy dog' User a 1024 dog'

Right Hand	a.b. C.d. et. gibilisikil minio, A an sition, way.2
Left Hand	armicidich och i EKI-mono, ap 5. tur xix 32

5. Signature with Left Hand

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0	Phony	-	



Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forensic Science) by Mr. Siddiqui Mohd. Khaja Moinuddin (Research Scholar) 2018

Name*	Ashish mahamune	DOB	26-05-01
Sex*	Contraction of the second second	Date of Admission	
School/ College Name*	M.P. Law college	Nature of Hand*	Right hand
Writing Skill (Languages)		Best Writing Skill	2. 919
Class	BALLO I	Level (Beginner/Lemen/Expert)	Ň

1.	Write !	to 20 (	l to	10 with	Right	Hand I	1 to 20	With	Left Hand)
1.1					- 24	1.1.1	0		and the second design of the s

Right Hand	1	2	3	4	5	6	٦	8	9	10.	
Left Hand	11	12	1	3	14	15	16	17	18	1920	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The	quick b	rown F	ox jumps or	ver a la	27 205	
Left Hand	The	quick	brown	Pox jumps on Fox jumps	overa	1429	209.

Right Hand	The	quice	onjx	Bopin	jumps	OVE .	the	1927	dwarf
Left Hand	The	quick	- omj	goldi	in uur	mps o	wer	thela	ely durar f

4.	Write with both hands "A to Z' in small letters.
۹	write with both hands 'A to Z' in small letters,

	ABCDEFGHIJKLMNOPARSTUVWXJZ	
Hand	AD CDEFGHIJKLMHOPORSTVVWXJZ	
Hand		

5. Signature with Left Hand

refressione



Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forensic Science) by Mr. Siddiqui Mohd. Khaja Moinuddin (Research Scholar) 2018

Name*	Tribberon Shubham	DOB	22-11-2001
Sex*	Diale	Date of Admission	
School/ College Name*	M-P-LOW College.	Nature of Hand*	Right .
Writing Skill (Languages)	English.	Best Writing Skill	
Class	BA-LLE IT	Level (Beginner/Lemer/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1, 2, 3, 4,5, 6, 7,8, 5, 10.
Left Hand	11, 12, 13, 14, 15, 16, 17, 18, 19, 20

2. Write with both hands "The quick brown fex jumps over a lazy dog"

Right Hand	1 The	quick	brown	for jumps	over	eq.	lazy	dog	
Left Hand	The	quick	brow	for jur	nps	OVET	q	lazy	pob

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The	quick	autis	goblin	jumps	OVEY	-the	lazy	dwarf
Left Hand	The	quick	onyx	god(n.	tumps	DUNY	the 1	0.20	dwarf dwa <b>r</b> f

	4. Write with both hands 'A to Z' in small letters.
Right Hand	a, b, e, d, e, f, g, h, i, j, K, L, m, n, o, p, q, x, s, t, u, y, o, a, y, 2
Left Hand	a picidie fightin Kickmonopie, rist 19,0,0, x, y, z

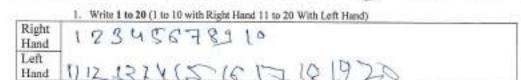
5. Signature with Left Hand

Chulchn	Read Street
11 Sheetman	Studobar
1	
h	



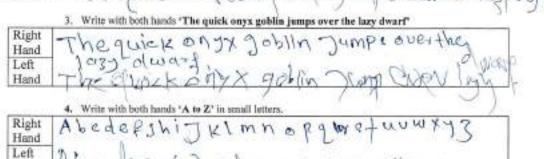
Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forensic Science) hy Mr. Siddiqui Mohd. Khaja Moinuddin (Research Scholar) 2018

Name*	Deehmuich Yorn	DOB	17-may- 1999
Sex*	male	Date of Admission	2020 .
School/ College Name*		Nature of Hand*	Right handon left
Writing Skill (Languages)	Englieh	Best Writing Skill	C
Class	B.A.1.L.B.T	Level (Beginnen/Lemer/Expert)	Bezinner,



2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick b	nown for	jumps outro	193-Jday
Left Hand	The quide b	YOUD POX	CAUD 2 GMV C	la for day

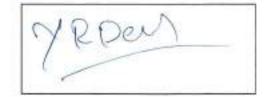


5. Signature with Left Hand

#### 6. Signature with Right Hand



Hand





Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forensic Science) by Mr. Siddiqui Mohd. Khaja Moinuddin (Research Scholar) 2018

Name*	Satish Amte	DOB	10/07/12000
Sex*	Dele	Date of Admission	
School/ College Name*	M.P law college	Nature of Hand*	her wheite Hand
Writing Skill (Languages)	English	Best Writing Skill	
Class	B.ALLB 2nd	Level (Beginner/Lemer/Expert)	

1.	Write 1	1 to 20 (1 to	10 with Rig	ght Hand 11	to 20 With Left Hand)
----	---------	---------------	-------------	-------------	-----------------------

Right Hand	1	2	3	Zy.	5 6	٦	8	٩	0		
Right Hand Left Hand	()	12	13	t4	15	15	17	18	(9	50	

### 2. Write with both hands "The quick brown fox jumps over a lazy dog"

Right Hand Left Hand	The quick boown fox jumps over a lozy of	dog
Left Hand	The quick brown tax jumps over a lazy	day

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The	quick	onyx	qoblin	jumps	over	the	1024	dwant'
Left Hand	The	quick.	onyt	Joblin	jumps	aven	He	lazy	dwarf

Right Hand	A		c D																		
Left Hand	M	0	CD	F	1	GF	15	- 3	K	L	(1)	N	C	0	Q,	RS	1 2	r h	KI	7	2

5. Signature with Left Hand





		G	ń
	P		ch Thesisin Ph.D. (Forensic Science) by
Name*	Mr. siddigi minath Bacak	ui Mohd. Khaja Moinuddin ( DOB	Research Scholar) 2018
Sex*	Male	Date of Admission	17 00 - 0.
School/ College Name*	M. Plow conage	Nature of Hand*	Right hand
Writing Skill (Languages)		Best Writing Skill	
Class	BALLBI	Level (Beginner/Lerner/Expert)	
	Write 1 to 20 (1 to 10 with Ri	ght Hand 11 to 20 With Left	Hand)
Right 1	2 3 4 5 6 7	8 9 10 11 12	13 14 15 18 17 18 19 20
Left Hand	234 5678	9 10 11 12 1	3 14 15 16 17 18 18 20
2	Write with both hands 'The q	uick brown fox jumps over	a lazy dogʻ
Right +	To suick h	man for	IMPS OVER 0
Left Hand	ue dokk poon	up perivons	over a lost doy?
	Write with both hands 'The q		
		men out a Fonen Jambs at	and the second sec
3. Right TF	P QUICK ONY	X goblin jum	ops over the lozy did
Right TF	he quick only	x goblin jun	opps averathe lozy drado opps averathe lozy drado

Right Hand	Ą	B	C	Э	5	£	6	н	L	7	K	Ł	M	N	οP	\$	R	\$ 7 1	uv L	IXY:
Left Hand	A	8	( Þ	2	F	r.t	(T	Jł	44	MA	10	PQ	R	T	W	10	VI	×7	2	•

5. Signature with Left Hand

6. Signature with Right Hand

r

School/ College Name* Writing Skill (Languages) Class	Female Manikerand Pahade Lellege English	Date of Admission Nature of Hand®	
College Name* Writing Skill (Langunges) Class	ranade coulege	Papare of Finna	
(Languages) Class	English		Right.
Class		Best Writing Skill	
	B.A.LIB 2ndyuy.	Level (Beginner/Lenser/Espe	Beginner.
They be the second s	Write 1 to 26 (1 to 10 with R		Left Hand)
Right 1,	2,3,4,5,6,	7,8,9,10	
Left N.	12, 13, 14, 15,	16.17. 18 1	9,20
Hand "I	-10211-1	-i j -r	
Right Hard Left Hand	Write with both hands 'The	r doppy the t	which is a second the logy of unper weather the logy of
$\begin{array}{c c} & & \\ \text{Right} & \mathbf{Q} \\ \text{Hand} & \mathbf{t} \\ \text{Left} & & \\ \text{Hand} & & \mathbf{t} \\ \end{array}$	bcdet bcdet bcdet vwxyz	g hi yz	KLMN0pgrs
5.	Signature with Left Hand	6. Signature w	ith Right Hand



Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forefisic Science) by Mr. Siddiqui Mohd. Khaja Moinuddin (Research Scholar) 2018

Name*	Garger S. Inulance	DOB	27-1-2003
Sex*	Female	Date of Admission	
School/ College Name*	MPLOW College	Nature of Hand*	Right Hond
Writing Skill (Languages)		Best Writing Skill	
Class	BALLB - I year	Level (Beginner/Lemer/Expert)	

1. Write I to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right	1,2345678910 11 12 13 14 15 16 17 18 1920
Hand	
Left Hand	1,2345678310 11 12 13 14 15 16 17 18 1320 12345678310 11 12 13 14 15 16 17 18 13 20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick brown for sumps over a largy dog
Left Hand	The quick brown tox comps over a logy day.

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The quick on ye gobin sumps aver the largy dward.
Left	The quick only gobin sumps aver the largy dward.
Hand	The guick Only gobin sumps are the the logy dward.

4. Write with both hands 'A to Z' in small letters.

Right	abedelghiskimnopgestorwzyz
Left	abedebshitkennopgestoovwest

5. Signature with Left Hand

Hagojare

liquitare

	Handwriting Sample collecti Mr. Siddio	SALSSAIA ionfor-Completion of Research if Mohd, Khaja Moinuddin ()	ch Thesiain PiaD. (Foreficia Science) I
Name*	Sayali Ingle	DOB .	
Sex*	Fentale	Date of Admission	
School/ College Name*	manikenoud pahade	Nature of Hand*	Right
Writing Skill (Languages)		Best Writing Skill	
Class	BALLB-2 year	Level (Beginner/Lemer/Expert)	
1.	Write 1 to 20 (1 to 10 with Ri	ght Hand 11 to 29 With Left	Hand)
Hand	2345678	Contraction of the second s	
Left Hand	12 23 19 15 16	17 181920	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick Brown fox Jumps over a lazy dog
Left Hand	The wick Orown far swmps over a lazy alog

3. Write with both hands 'The quick ony's goblin jumps over the lazy dwarf'

Right Hand	The	quick	onyx	goblin Jumps	over	the lazy dworf	
1.efi Hand	The	944ick	o pyx	gover and a	18P+ba	the lazy dworf 1924 Junif	

4. Write with both hands 'A m2" in small letters.

Right Hand	A bedefgHIJKLMNOP&RSTUVWXYZ
Left Hand	Q & L & E F & H I J K L N NOPARSJ UV WKYZ

5. Signature with Loft Hand

Barony

Sayali



SALGATIAS

Handwriting Sample collection for-Completion of Research Thesisin Ph.D. (Forefsic Science) by Mr. Siddiqui Mohd, Khaja Molnuddin (Research Scholar) 2018

Name*	Puryanka Machado	DOB	
Sex*	fenhale	Date of Admission	
School/ College Name*		Nature of Hand*	Right-Handled
Writing Skill (Languages)		Best Writing Skill	- Xi
Class		Level (Beginner/Lemer/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	123456789	10 #1
Left Hand	123456789 M2B14156171819	20

2. Write with both hands 'The quick brown fox jumps over a lazy deg'

Right Hand	The quick brown fox jumps over the laxy dog.
Left Hand	The quick brown for jumps 2000 the sory 0/09.

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'				
Right	The quick only goolin jumps over the lazy dubary.			
	no da la			
Left Hand	The quick only goblin runged over the longy durant			

1221	4. Write with both hands 'A to Z' in small letters.	
Right Hand Left Hand	abcdefghijklmnopqn&tuvwxyz. abcdefgnijklmnopqn&tuvwxyz.	

5. Signature with Left Hand

Macheno

		GALGOTE UNIVERSE ectionfor-Completion of Resea fiqui Mohd. Khaja Mainuddin	ruh Thesisin Ph.D. (Foressie Science)
Nami¢*	Sapha Santosh Son	and the second	2.9-11-1995
Sex."	Female	Date of Admission	
School/ College N	ame- M.P. Law college	Nature of Hand*	
Writing S (Language	kill -	Best Writing Skill	
Class	8A-LL.B 11	Level (Beginner/Lemer/Expert)	
Right Hand Left	1 2 3 4 5 6 78		
Hand	11 12 13 14 1	3 10 3 16 17 18 1	9 20
Hand Left Hand Right	14 12 13 14 1 2. Write with both hands "Th	310 316 17 18 1 e quick brown for Jamps ove	9 2.0 r a lazy dogʻ
Hand Left Hand	11 12 13 14 1	310 31617181 e quick brown for Jamps over fox jumps over a	9 20 ruluzy dogʻ Jazy dogʻ
Hand Left Hand Right Hand Left	14 12 13 14 1 2. Write with both hands "The "The grick brown	310 31617181 : guilek bronn for Jumpi ove fox jumps over a fox jumps over a	9 20 ralazy dog' Lazy dog' 2 lazy dog'
Hand Left Hand Right Hand Left	11 12 13 14 1 2. Write with both hands "The "The acuick brown "The gaicsk brown	310 316 17 18 1 e quick brown for Jamps over fox jumps over a Pax jumps aver a rax jumps aver a	9 20 r a lazy dog' Lazy dog' Lazy dog' rer the lazy dwart"

4. Write with both hands "A to  $\mathbf{Z}^{*}$  in small latters.

Right Hand	abcdef,	ghijklmnoparstuvwxyz
Left Hand	abodefal	ijklmnoparstuvwxyz

5. Signature with Left Hand

Sama

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Long	
14	

- 6		100	
۰.	20	5.38	
- 34	Sec	- 60	

GALVERTIAS

Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Fore Kic Science) by Mr. Siddiqui Mond. Khala Moinsddin (Research Scholar) 2018

Name*	Trupti Padmaken Jaki	BOB	29-01-2002
Sex*	Female	Date of Admission	
School/ College Name*	MP. Law college	Nature of Hand*	Right
Writing Skill (Languages)	English	Best Writing Skill	
Class	B-ALLB 2nd Jean	Level (Beginner/Lerner/Expert)	Beainner

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

	1,2,3,4,56,7,8,9,10
Left Hand	1112 13 29 15 16 17 18 19 20

2. Write with both hands 'The quick brown fox jumps over a lary dog'

Right Hand	The quick brown for jumps over a lazy dog	
Left Hand	The Purck by cano for jumps ouppy lage to	

3. Write with both hands 'The quick onys goblin jumps over the lazy dwarf'

Right Hand	The quick only gool in jumps over the loss dworf	
Left Hand	The quick once gollen jumps over obdilazy durger	

4. Write with both hands 'A to Z' in small letters.

Right Hand	a, b, c, d, e, f,g, h, i, j, Kl, m n o parstuuwxyz	
Left Hand	abede febrijkimnopojustivu congi	

5. Signature with Left Hand

Test

Tempi



Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forensic Science) by Mr. Siddiqui Mohd. Khaja Moinuddin (Research Scholar) 2018

Name*	Kartik D. Varazse	D08	03/12/2000
Sex*	Male	Date of Admission	- Die Mito
School/ College Name*	Cont.	Nature of Hand*	Right Hand
Writing Skill (Languages)		Best Writing Skill	
Class		Level (Beginner/Lemer/Expert)	

	1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)	
Right Hand	123456789 10 11 1213 14 15 16 1418 19 20	
7 15	1234567291011121314151612181720	

#### 2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick	brown for	Sumps	over	a	lasd	909
Left Hand	The suice	brown for 62000 for	Same	OVEL	9	124	deg

### 3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

a - a 5acc / 5a					jumP3	over	44.0	lasy	dwarf
Left Hand	The	Juich	Online	gillin	JUNDOS	DUR	the.	10000	Just

### 4. Write with both hands 'A to Z' in small letters.

Hand	apeq 66 BHISKIM NO 60 asturnada
Left Hand	abol efab i Skimnsprach Nallows

### 5. Signature with Left Hand



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GALGO	QT.	IAS

Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forelisic Science) by Mr. Siddiqui Mohd. Khaja Moinuddin (Research Scholar) 2018

Name*	Dayanashirian Musime	DOB	25103 2002
Sex*	Male	Date of Admission	
School/ College Name*	Marikehrd Pahada Wallige	Nature of Hand*	Right
Writing Skill (Languages)		Best Writing Skill	
Class	BALLB IT M Your	Level (Beginner/Lemer/Expert)	

### 1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand Left Hand	1	2	3	4	5	6	7	8	٩	10	11	12	13	14	151	6 1-	7 5	810	1 2	-0
Left Hand	1	2	3	7	5	6	7	8	9	10	11	R	13	12	151	6	17	7g	19	20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick brown york zimps over a sarry dog
	The quick begins been surder and a hope dog

3. Write with both hands 'The quick onyx goblin Jumps over the lazy dwarf'

Right Hand	The quick anyon goldin jings own the dayy dwarf	
Left Hand	The great contrac guildlin fundore reace the topy clubely.	

4. Write with both hands 'A to Z' in small letters.

Right Hand	A BC DEFGN IJKLMNOPARST UN WX42
Left Hand	ABCDEEGHIDKLMINDIPORSJUNNXYZ

5. Signature with Loft Hund 6. Signature with Right Hand

abyvarcas

		CHICOT	51
		GALGOT	38
			earch Thesisin Ph.D. (Foresic Science) in (Research Scholar) 2018
Name*	Valshnan Gallwad	DOB	11/10/2002
Sex*	Formale	Date of Admission	
School/ College Name*	MP law Us.	Nature of Hand*	Right
Writing Skill (Languages)	in one cap	Best Writing Skill	0
Class		Level (Beginner/Lemer/Exper	t)
504	¥15	:	(*)
printing and the second s	Write 1 to 20 (1 to 10 with Ri	ght Hand 11 to 20 With 1	.eft Hand)
Right Hand 12	345678910	1	
and the second se	o wale		
Hand	213741361712	1920	
	Write with both hands 'The q	which haven for human	ann a han daob
	write with both himds The q	mick niown for Jumps e	wer a tazy dog
Disht			A
Disht	he quick brown fo	on jumps owen	a lazy dog'
Right Hand Left			L.
Right Hand	he quick brown fo De ajuick brown		L. C.
Right Hand ブル Left Hand		foor jumps a	vær a laggi døg.
Right Hand JI Left Hand 3.	Write with both hands "The g	foor jumps a	ver a lay dag.
Right Hand Left Hand 3. Right Hand	Write with both hands "The g	foor jumps a puick onlyx goblin jumps alin jumps all	ver a lazy dag. over the taxy dwart dwarf.
Right Hand Left Hand 3. Right Hand	Write with both hands "The g	foor jumps a puick onlyx goblin jumps alin jumps all	ver a lazy dag. over the taxy dwart dwart.
Right Hand Left Hand 3. Right Hand J Left Hand J	Write with both hands "The g	foor jumps a wick only goblin jumps alin jumps au alin jumps au alin jumps au	ver a lazy dag. over the taxy dwart dwarf.
Right Hand Left Hand 3. Right Hand J Left Hand J Kight A. Right 0	Write with both hands "The o be quick any a gab be quick any a gab be guick any a gab be guick any a gab be guick any a gab write with both hands "A to	foor jumps a wick only goblin jumps din jumps all win jumps an win jumps an z' in small letters.	ver a lay dog. over the laxy dwart er the lazy dwart. of the lazy dwart.
Right Hand Left Hand 3. Right Hand J Left Hand 4. Right Hand A	Write with both hands "The o be quick anyor god be quick anyor god	foor jumps a puick only goblin jumps alin jumps au bir jumps au bir jumps au bir jumps au bir jumps au bir jumps au bir jumps au	ver a lay dag. over the bay dwarf. or the bay dwarf. of the lay dwarf. of the lay dwarf.

5. Signature with Loft Hand

6. Signature with Right Hand

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		GALGOTIA GALGOTIA onfor-Completion of Resear ii Mohd. Khaja Moinuddin (	ch Thesisin Ph.D. (Forentsic Science) by
Name*	Shrihari Kale	DOB	25/09/2002
Sex*	Male	Date of Admission	
School/ College Name*	M+P+Law certage	Nature of Hand*	Right hand .
Writing Skill (Languages)		Best Writing Skill	
Class	BA.LLB. 2nd year	Level (Beginner/Lemer/Expert)	
	Write 1 to 20 (1 to 10 with Ri	ght Hand II to 20 With Left	
			5, 16, 17, 18, 19, 20
Left Hand	434567891	A 11 12 13 14 15	16 17 18 19 20

Right Hand	Thee	quick b	rown for	Tum	PS 0	ver a	Lazy	dog
Left Hand	The		brown					

<ol><li>Write with both hands 'The quick onys goblin jumps over the lazy dwarf</li></ol>	Tast
------------------------------------------------------------------------------------------	------

Right Hand	The	quick	onyx	9 ob 17n .	jumps	over	the	Lazy	dwars'
Left Hand	The	quiet	олух	gabin	jump	over	the	LARZY	elwar

4. Write with both hands 'A to Z' in small letters.

Right Hand	abcdefghljkimnopgrstuvwxyz.
Left	abcdefghijkimnoparstuvwxyz.
Hand	abcdefghijkimnoparstuvwxyz.

5. Signature with Left Hand

Chinos

Striken

	Mr. Siddi	ui Mohd, Khaia Moinuddin f	ch Thesisin Ph.D. (Foredaic Science) by Research Scholar) 2018
Name*	Producine Starlikers	DOB 21/10/2002	21/10/200 2 .
Sex*	Make	Date of Admission	
School/ College Nar	me* M. P. L. C - Auronyo bo		Right home .
Writing Ski (Languages)		Best Writing Skill	
Class	BALLS II	Level (Beginnen/Lemen/Expert)	
	1. Write 1 to 20 (1 to 10 with F	light Hand 11 to 20 With Left	Hand)
Dian Lat			
Right Hand	12345678	91011121314	15 16 17 18 19 200
		8 10 11 12 13 14 8 11 10 11 12	one avent in our
Hand Left Hand	111-3 4567 2. Write with both hands 'The	guick brown fox jumps over	1314 15 14 17 18 15 >>>
Hand Left	2. Write with both hands "The The guick brown	guick brown fox jumps over ∩ fast Jumps ov	1314 15 14 17 18 19 20 a lazy dog' let a Ubzy dog .
Hand Left Hand Right	2. Write with both hands "The The guick brown	guick brown fox jumps over ∩ fast Jumps ov	1314 15 14 17 18 15 >>>
Hand Left Hand Right Hand Left	2. Write with both hands "The The suitche brown The suitche brown The suitche brown 3. Write with both hands "The	auick brown fox jumps over for fox Jumps over brown fox Jumps over brown fox Jumps over auick onyx gobiin jumps over	1314 15 14 17 18 19 20 a lazy dog' ler a Ubey dog . _Jomfs over a logg of
Hand Left Hand Right Hand Left	2. Write with both hands "The The suitche brown The suitche brown The suitche brown 3. Write with both hands "The	auick brown fox jumps over for fox Jumps over brown fox Jumps over brown fox Jumps over auick onyx gobiin jumps over	1314 15 14 17 18 19 20 a lazy dog . Joints over a log of
Hand Left Hand Right Hand Left Hand Right	1123 4567 2. Write with both hands 'The The quick brown The quick brown The quick both 3. Write with both hands 'The The quick orryg	9.1 101112 quick brown fox jumps over n flax Jumps over brown fax quick onyx goblin jumps over goblin Jum	1314 15 14 17 18 19 20 a lazy dog' ler a Ubey dog . _Jomfs over a logg of
Hand Left Hand Right Hand Left Hand Left Hand Left Hand	1123 4567 2. Write with both hands 'The The guick brown The guick brown The guick or po The guick or po The guick or The guick or	8_1 10 11 12 quick brown fox jumps over n flag: Jumps over brown fox guick onyx gobilin jumps over gobilin Jum gobilin Jum gobilin Jum	1314 15 14 17 18 19 20 a lazy dog' vera Ubey dog . Jumps over a vorsich er the lazy dwarf PS over the Ubey donof which when the tray donof
Hand Left Hand Right Hand Left Hand Left Hand Left Hand Right Hand	1123 4567 2. Write with both hands 'The The Huick brown The Huick brown The Huick brown The Huick brown The Huick orny The Juick orny	REALISTICS	1314 15 14 17 18 19 20 a lazy dog' rema Uluzy dog . Domfs wher an horse of the lazy dwart Bs where the Uluzy donof

Pok	
6	





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Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forensic Science) by Mr. Siddioui Mohd. Khaia Moinuddin (Research Scholar) 2018

	Dur growing	an prontal renage informulation	(Presearch Scholth	1 2010
Name*	Kishin K. Bhisuelt	DOB	151051	2002
Sex*	malle	Date of Admission		
School/ College Name*	M.P. Law collage	Nature of Hand*	Pright	hond .
Writing Skill (Languages)		Best Writing Skill		
Class	BALLB 2nd 75.	Level (Besinner/Lemer/Expert)		

1. Write I to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Hand	12-3-4-5-6-7-8-3-10-11-12-13-14-15-+
Left Hand	W,12_1214,15.18.19.02.12.26

# 2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The	quicin	bsown bdown	for	Jawle	s av	5	0. 1	547.7	dog.
Left Hand	The	Autok	bassions	Fort	jung	evar.	q	1003	· do	9.

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

Right Hand	The	duich	goblin	jumps	over	the	2027	al wort -
Left Hand	9007	drie A	alphiose	PHENNE.	abe	the	Logy	docurt.

4. Write with both hands 'A to Z' in small letters.

Right Hand	a,b,c,d,e,f,g,h,1,j,k,1,m,n,o,p,q,5-8,+, v,v, w,x,4.2,
Left Hand	ab. chertahis therapage seturium y re

5. Signature with Left Hand

Austra

			\$ ¥
	Handwriting Sample collect Me Siddia	ionfor-Completion of Researc ui Mohd. Khaja Moinuddin (J	th Thesisin Ph.D. (Forefsic Science)
Name*	Adarsh Chaurresia	DOB 14/01/2001	Westeron Schoary 2018
Sex*	MALE	Dute of Admission	
School/ College Nam	. MP LAW COLLEGE	Nature of Hand*	Right
Writing Skill (Languages)		Best Writing Skill	
Class	BALLB II'nd year	Level (Beginner/Lemer/Expert)	
	. Write 1 to 20 (1 to 10 with R	iebt Hand 11 to 20 With Left	Hand)
Right Hand	1 2 3 4 5 6	78910	
Left Hand	11 12 13 74 15	76 17 18 192	a
Hand			.3.
Hand	IN 12 13 74 15 Write with both hands "The guick brown	uick brown fox jumps over	a lazy dog'
Hand	. Write with both hands 'The q	uick brown fox jumps over n box jumps ov	a lazy dog' Per a lazy -lozy-
Hand Right Hand Left Hand	The quick brown The quick brown The grith brown	uick brown fox jumps over n box jumps ov R jumps OV	a lazy dogi er a lazy dogi ega lazy degi
Hand Right Hand Left Hand	1. Write with both hands "The g The guick brown The grith brown of g S. Write with both hands "The g	uick brown fox jumps over n box jumps ov the jumpe ov nick onlyx goblin jumps ove golin jumps over	a lazy dog' er a lazy dog eg a lezy dog r the lazy dwarf r the lazy dwarf

10-02-0	4. Write with both hands 'A to Z' in small letters.
Right	a bed etghijk\$ mnopgestuv wayz.
Left	go c deter hij RI nn o pgoshvow 243.
Hand	

5. Signature with Left Hand

6. Signature with Right Hand

Adaptic K Spannisia

Adarsh K. Chunsel<u>e</u>

	HARSHAVAROHAN	diqui Mohd. Khaja Moinuddin DOB	2.2 - 12- 2002
Sex*	MALE	Date of Admission	I COVE
School/ College Name	M.D. LOW Colored		RIGHT
Writing Skill Languages)		Best Writing Skill	
Class	BALLIS II	Level (Beginner/Lemen/Expert)	б
	. Write 1 to 20 (1 to 10 with	Right Hand 11 to 20 With Let	t Hand)
Right Hand	12345	678910	
Left	11 12 13 14 1	5 16 19 18	1920
Hand	11 106 101 171	5 14 17 14	150
	2. Write with both hands 'Th	e quick brown fox jumps ove	r a lazy dog*
Right - Hand	the second second second in the second s	fox jumps - overa	
Left Hand	The quick how	NO FAR KIMPAS OU	or a Lazy dog.
		e quick onyx goblin jumps o	
Right Hand	The quick only	zgoblin jumps o	werthe lazy dwart.
	47	and aildoo s	s werk the bey dwaks
Left Hand	The quisting	the second se	
Hand	Y.	1	
Hand	Write with both hands 'A	1	
Hand Right Hand Left	a bedef gh ljk	to Z' in small letters.	1.95
Hand Right Hand Left	a bedef gh ljk	to Z in small letters. Lmmopqysturw	1.95
Hand Right Hand Left Hand	a bedef gh ljk abedef gh ljk	to Z in small letters. Lmmopqysturw	izidis 1.Ais

83			9	20
			GALGOTIA	ş M
				h Thesisin Ph.D. (Forefaic Science) by
Name*		Salari Agsaral	ui Mohd. Khaja Moinuddin (F DOB	Cesearch Scholar) 2018
Sex*		Female.	Date of Admission	
School/ College N	ame*	manikahand Assade	Nature of Hand*	Right-
Writing Si Language		etra a	Best Writing Skill	
Class			Level (Beginner/Lemer/Expert)	
	5			
Right	-	Write I to 20 (1 to 10 with Ri 2 3 4 5 6 7 8	A loss and a second	Hand)
Hand	1.00	4292048	3 10	
Left	11	12 13 14 15 16	17 19 19 20	
Hand			11 10 11 45	
Hand			No. of the second s	a lazy dogʻ
Hand Right Hand	Z. The	Write with both hands "The g quick breach for	juick brown fox jumps over Jumps' ouch a la	my dag.
Right	Z. The	Write with both hands "The g	juick brown fox jumps over Jumps' ouch a la	my dag.
Right Hand Left	2. The Th	Write with both hands "The g quick breach for	puliek brown fox jumps over Jumps' ouch a la Fox jumps Oues	a lozy dog
Right Hand Left	2. -The Th 3. Th	Write with both hands "The g quick brown for e quick brown Write with both hands "The g e quick anyx gob!	puliek brown fox jumps over Jumps' ouch a la Fox jumps oues puliek ouyx goblin jumps over tin jumps ouch t	a lozy dog the lazy dog he lazy dog
Right Hand Left Hand Right	2. -The Th 3. Th	Write with both hands "The g quick brown for e quick brown Write with both hands "The g e quick anyx gob!	puliek brown fox jumps over Jumps' ouch a la Fox jumps oues puliek ouyx goblin jumps over tin jumps ouch t	ang dag. On lozey dag er the lazy dwart
Right Hand Left Hand Right Hand Left	2. -The Th 3. -Thi Th	Write with both hands "The g quick brown for e quick brown Write with both hands "The g e quick anyx gob!	puliek brown fox jumps over Jumps' ouch a la Fox jumps oues pulck ours goblin jumps over in jumps ouch t oblin jumps ouer	a lozy dog the lazy dog he lozy dogut
Right Hand Left Hand Right Hand Left Hand	2. The Th 3. Th Th 4.	Write with both hands "The g e quick brown for e quick brown Write with both hands "The g e quick anyx gob" e quick anyx gob" Write with both hands "A to	puliek brown fox jumps over Jumps' ouch a la Fox jumps oues puliek ours goblin jumps over tin jumps ouch t oblin jumps ouch t Z' in small letters.	a lozy dog a lozy dog the lozy doart the lozy doart the lozy doart
Right Hand Left Hand Right Hand Left Hand	2. The Th 3. Th 7 Th 4.	Write with both hands "The g e quick breacon for e quick breacon for Write with both hands "The g e quick anyx gob! e quick anyx gob!	puliek brown fox jumps over Jumps' ouch a la Fox jumps oues in jumps ouen t oblin jumps ouen Z' in small letters.	ang dag. a lazay dag in the lazy diaant the lazy diaant the lazy diaant wixeyz

5. Signature with Left Hand

- 12

6. Signature with Right Hand

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. 10 dalour



GALGORIAS

Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forefric Science) by Mr. Siddigui Mohd. Khaja Moinuddin (Research Scholar) 2018

Name*	Siddhi florman	DOB	09/08/2003
Sex*	Female	Date of Admission	
School/ College Name*	MP Law College	Nature of Hand*	Right
Writing Skill (Languages)		Best Writing Skill	
Class	BALLE II	Level (Beginner/Lemer/Expert)	

Right Hand	1	2	3	4	5	6	7 6	3 -	9 10	0
and the state state in the state		12	13	14	12	16	17	19	19	20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The	quick	brown	fore	jumps	oner	a	lazy	dog.
Left Hand	The	guick	brown boteum	fox	-jumpa	over.	Υ		

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The qui	ck	onyx	goblin	jumps	over	the	lazy dwarf.
Left Hand	The gui	ck.	onyx	2000	Jumps	arest	the	lazy dwarf. 1039 dwarf.

### 4. Write with both hands 'A to Z' in small letters.

Right Hand	abcdefghijklmnopgnstuvwn
Left Hand	ab c def g h i j klmnopq rst uv wx yz. abcdefg hijklmnopq restuv wx yz.

5. Signature with Left Hand

Siddhi

hiddhe

Name*	Sal Sisodiya	DOB	
Sex*	Semala 6	Date of Admission	
School/ College Name*	De MP Law college	Nature of Hand*	Right handed.
Writing Skill Languages)	anglich	Best Writing Skill	v
Class	0	Level (Beginner/Lemer/Expert)	
84			
Right .	Write 1 to 20 (1 to 10 with 1		10.10.10.10.10.10.10.10.10.10.
Hand	23456	78910	11 12 13 14 15 16 17 18 19
Left	234567	89 10 11 12	13 14 15 16 17 18 1920
Hand 1 4		011010	- 1- 14 19 10 17 COLLEGE
2	Write with both hands 'The	quick brown fox jumps ove	er a lazy dogʻ
Right Th		10 120 111	ver a lazy dog.
110000	e quar corsion	of four durings sa	and any only
Left Jh	e. quick beaust	often jumps a	in a low Am.
Hand		R. Courts	mex a may may
3.	Write with both hands 'The	quick onyx gobiin jumps o	ver the lazy dwarf'
Right the	e quick only got	the sumbs ough +	he lozy dward
Left -1A			
Hand	le applice only t	goblin jun	the way the locy dutal.
		V	1 0 1
the second se	Write with both hands 'A to		
Right A	BEIABCDE	FGHIJKLMN	NGRSTUVWX4Z hgistuwwayz
Hand A	be defge	ijklmno	hgistuniayz
Hand	bededa	hisk Imaal	PARKUNDARZ
	9	0	0
1			
5.	Signature with Left Hand	6. Signature with	Right Hand

		er.		
÷.	1.1	5		
- No.	-	_		
_	620	-	۳.	

GALGOTIAS Handwriting Sample collection for-Completion of Research Thesisin Ph.D. (Forensic Science) by Mr. Siddiqui Mohd. Kluuja Moinuddin (Re

Name*	Goular Pabidas	DOB 11-11-1999	
Sex*	Male	Date of Admission	
School/ College Name*	MP-Law Collage	Nature of Hand*	
Writing Skill (Languages)	English	Best Writing Skill	
Claos	B-A-LL-B	Level (Beginner/Lemer/Expert)	

1. Write 1 to 20 (I to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1234567891011 12 13 14 15 16 17 18 19 20
Left Hand	1234567891011121314151617181920

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	"The quick brown fox jumps over a lasy dog,	
Left Hand	The PUICK LANW FOR JUMPS OVER a LAZY dog'	

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

Right	The quick only goblin jumps	AV ID	+40	1024	duna 2P2
Hand	. The donor out good is good is good	0101	(inc)	mes	durang

Hand The gevick on ye	gablin	JUMPAS O	iver the	103×	dw anf ?	
-----------------------	--------	----------	----------	------	----------	--

4. Write with both hands 'A to Z' in small letters.

Right Hand	A BC DEFGHIJKLMNOPERSTUVWXYZ	
Left Hand	ABCDEFGAIJKLMNOPARGTUAWXYZ	

5. Signature with Left Hand

6. Signature with Right Hand

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Gauday

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	GALGOTIAS
)	Handwriting Sample collection for-Completion of Research Thesisin Ph.D. (Forefric Science) by Mr. Siddiqui Mohd, Khaja Moinuddin (Research Scholar) 2018

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Name*	Knohna Tunger	DOB 2-6/10/1002	26/10/2002
Sex*	Male	Date of Admission	24/12/2021
School/ College Name*	M.P. I and Gillege	Nature of Hand*	Right
Writing Skill (Languages)		Best Writing Skill	
Class	B-A-U-B-T	Level (Beginner/Lemer/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	12345678910	
Lafr	11.12,1314,15,16,17,18,19,20	-

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

	The						lary dog
Left Hand	The	quick	brown	fox	jumps	over a	lazydag

	3. Write	with both	hands "Th	e quick ony:	goblin jum	ps over the la	zy dwarf'	
Right Hand	The	quick	onyr	geblin	Jumps	over the	lazy	dworf
Left Hand	The	quict	< only it	Jobhi	jumps	45448 J	he	here post

Right Hand	a, b, c, d, e, f,g, h, i,j, K, & M, n, o, P, q, a, s, t, V, M, X, Y, Z
Left Hand	NEGLERS build in representation with the

5. Signature with Left Hand





SALGATIAS

Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forefisic Science) by Mr. Siddiqui Mohd, Khaja Moinuddin (Research Scholar) 2018

Name*	Shyirg Tour	DOB	27/11/2003.
Sex*	Male	Date of Admission	
School/ College Name*	Manikanana Bhade law college	Nature of Hand*	Right
Writing Skill (Languages)	<u>d</u> -	Best Writing Skill	
Class	B.A.LLB	Level (Beginner/Lemer/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	4	2.	1	5 1	1	5 (	5 7	8	٩	10	15	12	1	3 1	4	15	16	17	18	19	20
Right Hand Left Hand	1.	2	э	4	5	4	7	8	9	10	11	12	13	14	1	5	16	17	18	19	20

2. Write with both hands "The quick brown fox jumps over a lazy dog"

Right Hand	The	QUICK	browns for jumps	over a	leary	Bop
Left Hand	The	quicks	brown for jumps brown for jumps	over a	lazy	dog

3. Write with both hands 'The quick onya gobiin jumps over the lazy dwarf'

Right Hand	The	quick	outr	gob19n	Jumps	DUR.	r th	e laz	y dwarf
Left Hand	The	quick	004%	Boblin	jumps	Ove y	the	1024	y dwarf dwarf

4. Write with both hands 'A to Z' in small letters.

Right Hand	A	0	c,	D	3	P	(n	ы	T	2	к.	L	ţ.	N	0	9	Ф	R,	5	τ	U	y	ų	×	Y	Z.
Hand Left Hand	A	8	c f	) E	- F	6	, n	T	2	K	2	M	NC	P	9 9	15	T	U	V	w,	x	×	Z			

5. Signature with Left Hand

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ATOM	
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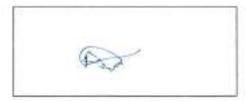
			GG	
			GALGOTI/ GALGOTI/ infor-Completion of Resea ii Moad. Khaja Moiruddin	rch Thesisin Ph.D. (Forefisic Science) by
Name*		ALMO WENDLOS	D08	0/-05-= 2002-
Sex*		mole	Date of Admission	
School/ College Na	ame*	MIRLOW College.	Nature of Hand*	RECIMIT
Writing Sk (Language	.111	MRADENTE / EHONESH	Best Writing Skill	
Class		BOULS.	Level (Beginner/Lemer/Experi)	Lernan
	1.	Write 1 to 20 (1 to 10 with Ri	ght Hand 11 to 20 With Left	t Hand)
Right Hand Left Hand	1.+	2.3.4.5.8	7. 4.9, 10 , 11.	12,13,14,17;10110,10,10,000 B (4/5/6)) 10 1920
	2.	Write with both hands 'The q	uick brown fox jumps over	r a lazy dogʻ
Right Hand		eview booms		
Left	1.	3 optice brokens	and share with	1 7 100 8 DUN

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf"

the quint any a gobin Longe own the lawy church. KIDE glink change goblin Jung extension for fairly dough Right Hand Left Hand

	<ol> <li>Write with both hands 'A to Z' in small letters.</li> </ol>
Right Hand	R.B.C. DIFEGLEDELMWPORSTUVEWAYS
Left Hand	P.B.C. DIERGHEARLINNPARSTUVEURYS P.B. DEFGYMESKUNGROPHROTUNYR

5. Signature with Left Hand



R	

Name*	Ashatosh Jutark	iddiqui Mohd. Khaja Moinadain	the providence of the late backward and the providence of the second
Sex*	usere	Date of Admission	19-10-2002
School/ College Name	M.P. Laure Colle	Nature of Bloods	
Writing Skill (Languages)	English	Best Writing Skill	Right handed
Class	BA.LL.B -	(Beginner/Lemer/Expert)	đ
1	Write 1 to 20 (1 to 10 w	ith Right Hand 11 to 20 With Le	ft Hand)
Right	23456789	and the second se	Wileth-W
FEBDO		10	
Left .		-	
Hand	1121314151	517181920	
Hand	1121314151	17 18 19 23	
Hand 2			r a lazy deg'
2	Write with both hands "	The quick brown fox jumps ove	1 1 1
Right 4 c	Write with both hands "		1 1 1
Right 4 Hand 4 Left 4	Write with both hands "	The quick brown fox jumps ove	1 1 1
Right 4 c	Write with both hands "	The quick brown fox jumps ove	1 1 1
Right Hand Left Hand 3	Write with both hands T Whe guick brazes We guick Scence	The quick brown fox jumps ove	c a lazy dogi c a lazy dogi
Right Hand Left Hand 3	Write with both hands T Whe guick breases We gain filesone Write with both hands T	The quick brown fox jumps over n for jumps over for for jumps over the quick only gablin jumps or	c a lazy clog c a lazy clog c a lazy traz
Right Hand Left Hand 3	Write with both hands T Whe quick breases We quick freese Write with both hands T We quick only a	The quick brown tox jumps on n fase jumps one fade fumps of 1000	c a lazy dog' c a lazy dog er the tazy dwart er the lazy dwart
Right 4 Hand 4 Left 4 Hand 3 Right 4 Hand 4 Left 4 Hand 4 Hand 4	Write with both hands T the quick braces the quick braces Write with both bands T the quick ony of The quick ony of	The quick brown tox jumps over n for jerning orien for Twing ODS The quick only gabilin jumps or Goldin jerning or 2 30 Min jerning F	c a lazy dog' c a lazy dog er the tazy dwart er the lazy dwart
Right 4 Hand 4 Left 4 Hand 3 Right 4 Hand 4	Write with both hands T the quick breases Write with both hands T the quick ony of The guick on you Write with both hands "	The quick brown tox jumps over n for jumps on the fort Jumps Bors The quick onex gabilin jumps or Jobelin Jumps A 20 Jun Jumps B 21 July Jumps B	c a lazy elog e a lazy elog er the tazy ewarr er the lazy dearf soze the lazy eleverf
Right 4 Hand 4 Left 4 Hand 3 Right 4 Hand 4 Right 4 Hand 4	Write with both hands T Uhe quick breases Write with both hands T Write with both hands T Me quick only a Write with both hands T Write with both hands T bcdefshij	The quick brown tox jumps over n for jerning orien for Twing ODS The quick only gabilin jumps or Goldin jerning or 2 30 Min jerning F	c a lazy dog' c a lazy dog' er the bay dwarr er the lazy dwarf soze the hey dearf soze the hey dearf

5. Signature with Left Hand

DOTHER DE 1 4

Astat

Class

	Handwriting Sample collect Mr. Siddig	GALGON GALGON ionfor-Completion of Re of Moind, Khaja Moinddo	Starch Thesisin Ph.D. (Forensic Science) by
Name*	Rushikesh chalak	D08	03-09-2003
Sex*	Male	Date of Admission	
School/ College Name*	Manikchand Pahade Law college	Nature of Hand*	Right
Writing Skill (Languages)	4	Best Writing Skill	
the state of the s		the second se	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

BALLB-IStyr.

Level

Right Hand	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,14,17,18,14,20
Left Hand	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,14,17,18,19,20

(Beginner/Lemer/Expert)

2. Write with both hands 'The quick brown for jumps over a lazy dog'

Right Hand			brown						
Left Hand	The	quick	prown	Fox	jumps	OUBY	2	lazy.	dog

Right Hand	The	quick	ondx	goblin	jumps	over	the	lazt	dwarf .
Left Hand	The	qui	CK (	addre	8-oplin	Jumos	OVE	er las	y duart

4. Write with both hands 'A to Z' in small letters. Right a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, T, s, t, a, v S, x, y, z, w b = d e, F g h i j R 1 M & D P Q J S & u V W X d Z Hand Left Hand

5. Signature with Left Hand

June.



GALGERIAS

Hundwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forefisic Science) by Mr. Siddiqui Moha. Khaja Moinuddin (Research Scholar) 2018

Name*	Pradyamna Bodkhe	DOB	
Sex*	Male.	Date of Admission	
School/ College Name*		Nature of Hand*	Right
Writing Skill (Languages)	3	Best Writing Skill	my
Class	B-A-II-B	Level (Beginner/Lemer/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	12345678910	
Left Hand	12345578910	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The	quick	brown	for jumps over a lazy dog
Left Hand	The	quiet	s promo	for jumps aver a lazy dog

Right Hand	The	quick	onyx	goblin	jumps	over t	he l	024	dwarf
				nijdae					

Right Hand	abcd	eFghij	KIM nopar mnopastus	stuvwx
Left	abede	fghijkl	wurddazern	1WX42

5. Signature with Left Hand

Balkhe.

	1	17.2	-		
	- 6	1.	5		
		-	P		
5	iAL.	60	TIZ	15	

Handwriting Sample collection for-Completion of Research Thesisin Ph.D. (Forefaic Science) by Mr. Siddiqui Mohd. Khaja Moinuddin (Research Scholar) 2018

Name*	Sahi) Myskute	DOB 08/01/2003	service of the servic
Sex*	Male	Date of Admission	
School/ College Name*	MP law college	Nature of Hand*	Right
Writing Skill (Languages)	English	Best Writing Skill	
Class	BAILLB 15+ years	Level (Beginner/Lemer/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right	1, 2, 3, 4, 5, 6, 7, 8, 9, 10
Left	11,12,13,14, 15, 16, 17, 18, 19, 20
Hand	11,12,10,14, 10, 10, 11, 18, 19, 20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick brown fox jumps over a lazy dog.
Left Hand	The quick brown Fox junes aved a lazy dog

Right Hand	The quick only Jobin jumps over the lary duarf.
Left Hand	The quick only goblin jumps over the lasy during

Right	a,b,c,d,e,f,g,h,i,j,kl,m,n,0, P,a,r,5,t,u
Hand	+V, w, x, y, z
.eft	A.D. derah: ik land Pads
fand	ADICIDE, E. a. h.i. j.K. L.M. N.O. P. C. S.

5. Signature with Left Hard



GALGATIAS

Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forefsic Science) by Mr. Siddiqui Mohd, Khaja Moinuddin (Research Scholar) 2018

Name*	Sunil A. Nighote		4 = 1 - 2003
Sex*	Male	Date of Admission	12-12-2021
School/ College Name*	Manichand Pahade	Nature of Hand*	Right hand
Writing Skill (Languages)	Marathi , English	Best Writing Skill	
Class	BA. LLB1St.	Level (Beginner/Lerner/Expert)	

L	Write 1	to 20 (1	to 10 w	vith Right	Hand 11 to	0.20	With Left	Handy
				and a second part of		C = 17	64 DOI: 179-11	1.000000.0

Right Hand	1	2	3	5	5	6	7	8	9	10
Right Hand Left Hand	1	2	DN:	1	5	6	2	8	9	10

2. Write with both hands "The quick brown for jumps over a lazy dog"

Right Hand	The	quick	bacun	for	Jumps	over	D,	Lazy	dog -
Left Hand	Me	quick	brown	for	Junps	NER	di.	Lasy	009

Right Hand	The	quick	onyx	goblin	JUMPS	OVES	the	lazy dwas
Left Hand	The	PRICA	DAVIER	goble	Judger	over	The	Lazg bar

Right	ABCJEFGHIJKLMNOPESTUVWXYZ	
Left	PACOGRAPTICMNOPESTUVWYYZ	

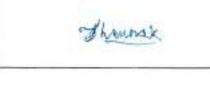
5. Signature with Left Hand

10

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Sthighote	
Count With the second	

Sex*	Shawhak K		1
the second se	Malo	Dute of Admission	25 Jan 2003
School/		Nature of Hand*	0.
College Name* Writing Skill	MP. Law colle	98	Right hand
Languages)	4.5 0.000 25 0.00	d Best Writing Skill	0
Class		Level	
		(Beginner/Lemer/Expert)	
	Write 1 to 10 /1 to 10 with	Right Hand 11 to 20 With Lef	11-0
Dialat			(riam)
Hand	2345678	019	
Left	the second s		
Left	the second s	5121819.71	7
Left	the second s	5.17, 18, 19, 20	2
Left	1.1213.14.15.1	and the second	
Left Hand f 2.	Write with both hands Th	e quick brown fox jumps ove	r a lazy dogʻ
Left Hand f 2.	Write with both hands Th	e quick brown fox jumps ove	
Left Hand ( 2. Right Hand Left	Write with both hands The	e quick brown fox jumps over wr box jump	r a lazy dogʻ
Left Hand ( 2. Right Hand Left	Write with both hands Th	e quick brown fox jumps over wr box jump	r a lazy dogʻ
Left Hand ( 2. Right Hand Left	1.12,13,14, 15,14 Write with both hands The re quick brown he guick brown	e quick brown for jumps ove wre box jumps ove h box josmps ov	ra lazy dogi vs over a lazy dog tre a lazy dog.
Left Hand [ 2. Right Hand T Left Hand T 3.	1.12,13,14, 15,14 Write with both hands The re quick brown he guick brown	e quick brown fox jumps over wr box jump	ra lazy dogi vs over a lazy dog tre a lazy dog.
Left Hand [ Right Hand T Left Hand T Right T Right T	Write with both hands The ne quick brown he quick brown write with both hands 'The	e quick brown fox jumps ove wr box jump h box josenps ov e quick onyx gobila jumps ov	r a lazy dog' 'S OVER a Lazy dog tre a lazy dog: or the lazy dwart"
Left Hand [ 2. Right Hand T Left Hand T Right Hand T Hand T	Write with both hands The ne quick brown he quick brown write with both hands 'The	e quick brown fox jumps ove wr box jump h box josenps ov e quick onyx gobila jumps ov	ra lazy dogi vs over a lazy dog tre a lazy dog.
Left [ Hand [ Hand ] Left ] Hand ] Right ] Hand ] Left ]	Write with both hands The Write with both hands The he quick brown Write with both hands "The re quick only kg	e quick brown fox jumps over wrr box jumps over h box josenps over e quick onyx gobila jumps ov solich jumps over	r a lazy dog' 'S OVER a Lazy dog tre a lazy dog: or the lazy dwart"
Left [ Hand [ Hand ] Left ] Hand ] Right ] Hand ] Left ]	Write with both hands The ne quick brown he quick brown write with both hands 'The	e quick brown fox jumps over wrr box jumps over h box josenps over e quick onyx gobila jumps ov solich jumps over	r a lary dog" "S OVER a largy dog the a largy dog. er the lary dwart" over the largy dwart
Left Hand ( 2. Right Hand Left Hand ( 3. Right Hand ( 4. Left Hand ( 1. Left Hand ( 1. Left Hand ( 1. Left Hand ( 1. Left) ( Left)	1.12,13,14, 15,14 Write with both hands The re quick brow he quick deor Write with both hands "The Write with both hands "The re quick only x gette quick only x gette	e quick brown tox jumps over wr box jumps over to box josonps over e quick onyx gabilis jumps ov zolis jumps of 200 n jumps of 200	r a lary dog" "S OVER a largy dog the a largy dog. er the lary dwart" over the largy dwart
Left Hand ( 2. Right Hand Left Hand ( 3. Right Hand ( 1. Left Hand ( 1. 4.	Write with both hands The Write with both hands The he quick brown Write with both hands "The re quick only kg	e quick brown tox jumps over wr box jumps over to box josonps over e quick onyx gabilis jumps ov zolis jumps of 200 n jumps of 200	r a lary dog" "S OVER a largy dog the a largy dog. er the lary dwart" over the largy dwart
Left Hand ( 2. Right Hand ( 1) Left Hand ( 3. Right Hand ( 1) Left Hand ( 1) Left Hand ( 4.	(12,13,14, 15,14 Write with both hands The re quick brow he grick drow Write with both hands The quick only con- quick only con- quick only con- quick only con- quick only con-	e quick brown fox jumps ove wr box jumps ove to fox josmps ov e quick onyx goblia jumps ov goblis jumps of n jumps of 200 o 2° in small letters.	r a lacy dog! ~ over a lacy dog ~ a logg dog or the lacy dwart" over the lacy dwart" over the lacy dwart the logg dward
Left Hand ( 2. Right Hand ( 1) Left Hand ( 3. Right Hand ( 1) Left Hand ( 4. Right Hand ( 2. ( 1) ( 1) ( 1) ( 1) ( 1) ( 1) ( 1) ( 1	(12,13,14, 15,14 Write with both hands The re quick brow he grick drow Write with both hands The quick only con- quick only con- quick only con- quick only con- quick only con-	e quick brown fox jumps ove wr box jumps ove to fox josmps ov e quick onyx goblia jumps ov goblis jumps of n jumps of 200 o 2° in small letters.	r a lacy dog! ~ over a lacy dog ~ a logg dog or the lacy dwart" over the lacy dwart" over the lacy dwart the logg dward
Left Hand [ Right Hand T Left Hand T Left Hand T Left Hand T Left Hand T Left Hand C Left Hand C Left Hand C Left C C C C C C C C C C C C C C C C C C C	(12,13,14, 15,14 Write with both hands The re quick brow Write with both hands "The re quick only x g quick only x gette Write with both hands "A to b, c, d, e, f. g,	e quick brown fox jumps ove wr box jumps ove to fox josmps ov e quick onyx goblia jumps ov goblis jumps of n jumps of 200 o 2° in small letters.	r a lary dog" "S OVER a largy dog the a largy dog. er the lary dwart" over the largy dwart



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	GALGRITAS	ŝ
Handwriting Sample Mr	e collectionfor-Completion of Research Thesisin Siddiqui Mohd, Khaya Moinuddin (Research Se	Ph.D. (Forensic Science) hy holari 2018
Akash kailas		1.0227.2002
	Date of Admission	

Name*	Akash kailas Ratha	DOB 10/04/2003	weikaren acimar) zura
Sex*	Male	Date of Admission	
School/ College Name*	Manikchand Pahas	eNature of Hand*	Right Hand
Writing Skill (Languages)		Best Writing Skill	
Clara	BALLB1St	Level (Beginner/Lemer/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1:	2 3	5	4	5	6	7	8	9	10	
Left Hand											

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	"The	quick	brown fox	Tumps	over	ল	lazy	dog '
Left Hand	"the	quick	brown fox brown fox	DOMES	OVET	φ	lazy	dog '

Right Hand	"The quick	Onya	goblin	Jump	s over	the	lazy	dwarf?
Left Hand	the quick	ODYL	golin J	UMPS	DVER	140	1024	lwarf"

Right Hand	A 8	C	D	E	f	GI	н	I	J	K	1.1	11	10	P	φF	5	τv	V	NY	YZ	-
Left Hand	AP	20	)E	5	G	H	I	JJ	K	. 1	N	1	10	O P	0	R	ST	U	VI	NX	cy:

5. Signature with Left Hand

Antos

- the second sec	Mr. Side	diqul Mohd, Khaja Moinuddin	rch Thesisin Ph.D. (Forefaic Science) (Research Scholar) 2018
Name* Ses*	Raju Bawant	DOB	57/04/2002.
	male	Date of Admission	
School/ College Name*		Nature of Hand*	
Writing Skill Languages)	English.	Best Writing Skill	
Class	BALLBI	Level (Beginner/Lemer/Expert)	
Right Hand	230456	112.252.255	(Hand)
Right Hand Left Hand Right Hand Left 7	2 3 04 5 6 2 (3 )4 15 (5 (7 Write with both hands The Ne Quick, book	78910. 2181320 ognick brown fox jumps ove 011 FOX jumps O	aluzy dog' Nes ci lazy dog.
Right Hand Left Hand I Right Hand Left Hand I Hand 3.	2 3 04 5 6 2 (3 )4 15 (5 (7) Write with both hands The NE QUICK booked NE QUICK brown ; Write with both hands The	78910. 2181920 ognick brown fox jumps over 011 FOX jumps O でみ jumps Over cquick onyx goblin jumps ov	n lezy dog' New Ci lazy dog. On lozy dog. er the bacy dwart'
Right Hand Left Hand I Right Hand Left Hand I S. 3.	2 3 04 5 6 2 (3 )4 15 (5 (7) Write with both hands The NE QUICK booked NE QUICK brown ; Write with both hands The	78910. 2181920 ognick brown fox jumps over 011 FOX jumps O でみ jumps Over cquick onyx goblin jumps ov	a lozy dog. a lozy dog. a lozy dog.

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5. Signature with Left Hand

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Hand

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6. Signature with Right Hand

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**SALGATIA**S

Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forefleic Science) by Mr. Siddiqui Mohd, Khaja Moinuddia (Research Scholar) 2018

Name*	Reduces he seminath when	DOB	14-02-2003.
Sex*	Male	Date of Admission	
School/ College Name*	Manioke hand Bahade Loco calbige	Nature of Hand*	Waite and latt
Writing Skill (Languages)		Best Writing Skill	
Class	BA.LL.B.	Level (Beginner/Lemer/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1,23456789 10	
Left Hand	11 12 13-14 15.16.17. 18.19,20	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The duilek boolon fox Jumps over a lary dog.
Left Hand	The fuichs booking for warps over a long dog.

3. Write with both hands 'The quick onys gobiin jumps over the lazy dworf'

Right Hand	The	quick	anyor	<b>Joblin</b>	Jump	avor	the	10.29	davors
Left Hand	The	quick	any	x 23b	Nin Jue	1PS	on es	10,2	davans Y Əlwask,

4. Write with both hands 'A to Z' in small letters.

Right Hand	Ø	b	c	9	e	fg	h i	11	1 1	tu.	00	Pa	rstuvazyz.
Left Hand	a,	b	C	d	9	fø	'n	j J-1	< ]	m	νa	19	estuvazyz-

5. Signature with Left Hand 6.

6. Signature with Right Hand

29, proope?

Buser.

6

Name*	Mr. Sidd	iqui Mohd. Khaja Moinuddin DOB	arch Thesisin Ph.D. (Forelisic Science) by (Research Scholar) 2018   0101   2003 -
Sex.*	Malo Malo	Date of Admission	1010112003 -
School/ College Name*		Nature of Hand*	
Writing Skill (Languages)	Inglish	Best Writing Skill	
Class	BA LLB.	Level (Beginner/Lemen/Expert)	
1	Write 1 to 20 (1 to 10 with	Right Hand 11 to 20 With Le	ft Hand)
Right / Hand	, 2, 3, 4,	5,6.7,	8,9,10.
Left 11 Hand	, 12 , 18 , 14 ,	15,16,17	, 18 , 19 , 20
		Contraction of the second s	A CONTRACT OF
2	Write with both bands 'The	quick because for impose on	er a lare das'
Right 2 Hand		for junys o	ver a lazy dog.
Right 1	b quick brown		ver a lazy dog.
Right Hand Left Hand	h quick brown he quick Subwin	fox jumps on Jeo jumps on	un a lazy dag. ur e bozy Azy.
Right Hand Left Hand	le Quick Irouri re Quick Souowi Write with both hands <b>Write</b> No Quick OY	fox jurys o Jos jurns on quick onyx goblin jumps o R GOBLIN jurn	ven a lazy dog 14 o bozy Az- ver the bazy dwart 5 ONA Di lozy dwarf
Right 2 Hand Left 9 Hand 1 Right 9	le Quick Irouri re Quick Souowi Write with both hands <b>Write</b> No Quick OY	fox jurys o Jos jurns on quick onyx goblin jumps o R GOBLIN jurn	ver the lary day -
Right Hand Hand J. Right Hand Left O	le Quick Irouri re Quick Souowi Write with both hands <b>Write</b> No Quick OY	for jungs o Jos jungs on quick once goblin jungs o R JOBUN jung m Gabler sung	ven a lazy dog 14 o bozy Az- ver the bazy dwart 5 ONA Di lozy dwarf
Right 22 Hand 22 Hand 7 Hand 7 Hand 7 Hand 7 Hand 7 Hand 7 Hand 4. Right A	b Guck brown a Guick Salown Write with both hands "The Write with both hands "A to Write with both hands "A to B C D E F O	for jurys o Jos jurns on quick onex goblin jumps o & follow jurns on gobles surg of in small letters. F H I J K L	ven a lazy dog 14 o bozy Az- ver the bazy dwart 5 ONA Di lozy dwarf

- 5. Signature with Left Hand
- 6. Signature with Right Hand

Black

Blogs

- 22	60	17	-	
	6.	5.7	2	2
	~	2.7	200	۲.,

Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forefisic Science) by Mr. Siddiqui Mohd. Khaja Moinaddin (Research Scholar) 2018

Name*	karse Audumbers	DOB	18/012/2000
Sex*	Male	Date of Admission	10/000/2000
School/ College Name*	MP low callege	Nature of Hand*	Right hand
Writing Skill (Languages)	english	Best Writing Skill	
Class	BALLB-T	Level (Beginner/Lemen/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1,2,3,4,5,6,4,8,9,10
Left	1,2,3,4,5,6,7,8,9,10
Hand	11,12,13,14,15,36,17,18,19,20

2. Write with both hands 'The quick brown fox jumps over a lazy deg'

Right Hand	'The	quick	provin	Fox	jumps	overa	lozy a	9'
Left Hand	'the	quick	btothe	Fax	Jamps-	over a	1024	dog

Right Hand	1.	The.	quick	e any)	gobii	n jum	Ps aver	the	larzy dawasp
Left Hand		The	94%*	anyer s	table i	umas ol	1872 Hp	1424	the work of

	4. Write with both hands "A to Z" in small letters.
Right Hand	A, B, C, D, E.F, G, H, J, J, K, LM, N, O, P, O, R, S, T, U, V, W, X, Y, Z
Left Hand	A, B, C, D, F, F, G, H, F, J, K, L, M, N, O, D, 91 R, S, T, 9, V, W, X, Y, Z

5. Signature with Left Hand

Bolumba

Name*	Mr. Siddig	ii Mond. Khaja Moinuddin DOB	White plants a characterized control of the second state of the
MARYER N. LABURARY		Date of Admission	03/08/2002
School/ College Name*	MP Law College	Nature of Hand*	
Writing Skill Languages)	English	Best Writing Skill	
Class	BALLA	Level	
Right Hand Left Hand 2	Write 1 to 20 (1 to 10 with Ri 2 3 4 5 6 1≈ 1≈ 1 + 55 Write with both hands 'The q	7 8 9 10 16 17 18 (\$ nick brown fox jumps ove	se)
Right Hand Left Hand 2.	Write 1 to 20 (1 to 10 with Ri 2 3 4 5 6 1≈ 1≈ 1 + 55 Write with both hands 'The q	ghr Hand 11 to 20 With Lef 7 8 9 10 16 17 18 (* elck brown foz jumps eve	se)
Right Hand I Left II Hand I Right Hand I Left T Hand I	Write I to 20 (1 to 10 with Ri 2 3 4 5 6 12 12 17 JE Write with both hands "The g HF quick brow he quick brow	the Hand 11 to 20 With Lef 7 8 9 10 16 JT 18 (fp alch brown for jumps ove in for Jump 1 for Jump	20) r = lavy dog' over a lazy dog' over a lazy dog
Right Hand Left Hand Right Hand Left Hand Left Hand	Write 1 to 20 (1 to 10 with Ri 2 3 4 5 6 1≈ 1≈ 1 + 55 Write with both hands 'The q	the Hand 11 to 20 With Lef 7 8 9 10 16 JT 18 (fp alch brown for jumps ove in for Jump 1 for Jump	20) r = lavy dog" over a lazy dog ' over a lazy dog

5.	Signature with Left Hand	
	a second a second a second a second a second	

RST

Hand

6. Signature with Right Hand

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-	april		

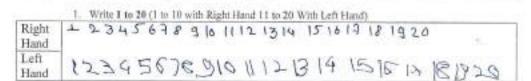
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Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forensic Science) by Mr. Siddiqui Mohit. Khaja Moinuddin (Research Schniar) 2018

Name*	Baldawa Vinay Dipgé	DOB	
Sea*	9.000	Date of Admission	
School/ College Name*	M.P. Law	Nature of Hand*	Right
Writing Skill (Languages)		Best Writing Skill	Q.
Class		Level (Beginner/Lemer/Expert)	



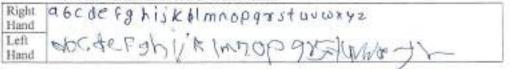
2. Write with both hands "The quick brown fox jumps over a hazy dog"

Right Hand	The	quick	prown	for jumps	over a	lazy	dog
Left Hand	The	quick	5700	for jumps n 16521	MB. CUS	月初月	898

	3. Wr	ite with both.	hands "The q	uick onyx go	oblin jumps o	ver the In	o dwarf?	
ght	The	2 quick	Onyx	gablin	iumps	over	the	lazy dwarf

Right Hand	The quick Onyx goblin jumps over the lazy dwarf
Lefi Hand	The quick Onyx goblin jumps over the lazy dwarf The quick Onyx goblin jumps over the lazy dwarf The quick Onyx goblin jumps over the lapy dress

4, Write with both hands "A to Z" in small letters.



5. Signature with Left Hand

12

Name* Sex*

	GALGOI GALGOI collection for-Completion of Re Siddiqui Mohd. Khaja Moinudd	earch Thesisin Ph.D. (Forensic Science) by
Stopping S Mrs		
Male O	Date of Admission	
4	Nature of Hand*	Right

Sex*	Male O	Date of Admission		
School/ College Name*		Nature of Hand*	Right	
Writing Skill (Languages)		Best Writing Skill		
Class	BALLB IST	Level (Beginner/Lemer/Expert)		

Right Hand	12345678910	
Left Hand	11 12 13 14 15 16 17 18 19 20	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick brown for jumps over a large dog	
Left Hand	The guick brown for jumps over a large day	

	<ol><li>Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'</li></ol>
Right Hand	The quick anyr goblin jumps over the lary dwayf The quick only gable jumps over the large dwaf
Left Hand	The quick ONLY gables Jumps Oner the sarge during

	4. Write with both hands 'A to Z' in small letters.
Right Hand	abcde /qhijklmnopqh btovwxyz
Hand Left Hand	a ocdefghiski maoparesturways

5. Signature with Left Hand

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Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Fore the Science) by Mr. Siddiqui Mohd. Khaja Moinuddin (Research Scholar) 2018

Name*	Mangesh Wasgane	DOB 5 Nov 2002	5 Nov 2002
Sex*	male	Date of Admission	23 Dec 2021
School/ College Name*	M. p. Jaw . Colloge	Nature of Hand*	mant Hand
Writing Skill (Languages)		Best Writing Skill	realized transf
Class	BAUBI	Level (Beginner/Lemer/Expert)	- 18

1. Write I to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

1.0.000104	1,2,3,4,5,6,7,8,9,10	-
Left Hand	11.5334,15.15,15,19,19,19,10	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right	The quick beach for jumps one a lazy days
Hand	The quick books for jumps start a lazy day
Left Hand	The allight books for jung days a last day

3. Write with both hands "The quick onyx gobila jumps over the lazy dwarf"

Right Hand	The	quick	onyx	goblin	Jumps	OVER	the	Luzy	dealef
Left Hand	The	ANCK.	XYNO	goblin	jumps	des	the	1000	gracet

4. Write with both hands 'A to Z' in small letters. Right Hand Left Hand Left Hand A to Z' in small letters. Company (Company) (

5. Signature with Left Hand

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		GALGOTIA	ş ij
		tionfor-Completion of Resear qui Mohd. Kinaja Moinuddin ()	ch Thesisin Ph.D. (Forefisic Science) by Research Scholari 2018
Name*	Rishabb Raj	DOB	31 Jan 2008
iex*	male	Date of Admission	
School/ College N	ame" M. P Law college	Nature of Hand*	Regul hand
Writing Sl Language		Best Writing Skill	
Class	BALLS 14 year	Level (Beginner/Lemer/Expert)	
Hand	1, 2, 3, 4, 5, 6, 7, 8		
Left Hand	16. 12. 13. 14. 15. 16 2. Write with both hands "The	, 17. 18 . 19. 20	and a second
Left Hand Right Hand	16 12. 13. 14. 15, 16	, 17, 18, 19, 20 quick brown fox jumps over	s hay dog' r a lazyy d.0g.
Left Hand Right	16.12.13.14.15.16 2. Write with both hands "The	, 17. 18. 19, 20 quick brown for jumps over for jumps ove	And a second sec
Left Hand Right Hand Left	16.12.13.14. 15. 16 2. Write with both hands The The quick process The quick brown 3. Write with both hands The	, 17, 18, 19, 20 quick brown for jumps over for jumps ove gase jumps over quick onys gablin jumps over	n a lazy dog. a lazy dog. er the lazy dwart
Left Hand Right Hand Left	16.12.13.14. 75. 16 2. Write with both hands The The quick process The quick brown	, 17, 18, 19, 20 quick brown for jumps over for jumps ove gase jumps over quick onys gablin jumps over	n a lazy dog. a lazy dog. er the lazy dwart

Right Hand	a. b. c. d. e. f.g. h. i. j. k. e. m. n. o. p.g. n. s. e. u. v. w. x. 4. z
Left Hand	a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, g, n, s, t, u, v, w, x, y, z

5. Signature with Left Hand

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Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forefisic Science) by Mr. Studiqui Mohd. Khaja Moinudain (Research Scholar) 2018

Name*	Vishal thorave	DOB	13 June 2003
Sex*	Male	Date of Admission	23 Dec 2022
School/ College Name*	Mp caw conege	Nature of Hand*	Right.
Writing Skill (Languages)	Goglish	Best Writing Skill	
Class	GALLB 14448	Level (Beginner/Lemer/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1	2	3	4	5	6	П	8	9	10
Left Hand	11	١	2	13	19	(5	16	17	18	10

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	the	quick	brown	fox	Jumps	over	0	1024	dog	3.
Left Hand	The	, gaicx	brown	four	JUMPS	SHER	- 9	10	X	600

3. Write with both hands 'The quick onys goblin jumps over the lazy dwarf'

Right Hand	the quick only goblin jumps over the lazy dwarf
Left Hand	The quick Entry soulin jumps over lazy & dwarf

Right Hand	ABCOEFGHTJKLMNOPQRST
	ABCDERGHIJKLMNOPORSTU

5. Signature with Left Hand

QIEMITY	Oshcur.v

Left

Hand

	Handwriting Sample collecti	GALGORTIA GALGORTIA tomfor-Completion of Resear ni Moha, Khaja Molnuddin (	rch Thesisin Ph.D. (Forensic Science) by
Name*	Dears mang-eth-	DOB	12-05-2-002
Sex*	Male.	Date of Admission	24 Ani 2022
School/ College Name*	Mp. Low college	Nature of Hand*	Bight
Writing Skill (Languages)	English	Best Writing Skill	-11-8-11
Class	BA-LLB.	Level (Beginner/Lemer/Expert)	
1.	Write 1 to 20 (1 to 10 with Rig	ght Hand 11 to 20 With Left	(Hand)
Right 1 Hand	234567	8 9 10	

2. Write with both hands "The quick brown fox jumps over a lazy dog"

Right Hand	The quick	procen	Fox (	Jumps	over	a 1924	dog.
Left Hand	The yoick	beach Fol	K Janf	ls over	9 64	124 169	

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right	The quick only soblin Jumps over the Lory dwarf
Left	The quick only goblin Jumps over the Lary dwarf. The quick only goblin Jumps only the razy dwarf
Hand	

4. Write with both hands 'A to Z' in small letters.

11 12 13 14 15 15 17 18 13 20

Right Hand	abcd-efghall mnopprstuv wxy-c
Left	ab cd - ef gh 3 kl mn op 9 r st. 4 v w x y - c
Hand	ab cd ef y h x km n p 9 x st. 4 v w x y - c

5. Signature with Left Hand

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(m)	

6	
-AN-	



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Handwriting Sample collection for-Completion of Research Thesisin Ph.D. (Forefrie Science) by Mr. Siddigui Mohd. Kheja Moinuddin (Research Scholar, 2018

Name*	Alt Stool Basilya	DOB	
Sex*	Make	Date of Admission	
School/ College Name*	Manikchand Rehade	Nature of Hand*	Right Hand
Writing Skill (Languages)	English	Best Writing Skill	
Class	B.A.LL B 1	Level (Bestsner/Lemer/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1,2,3,4,5,6,7,8,9,20	
Left Hand	1,2,3,4,5,6,7,8,9,20	

### 2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The gukk boown fox jumps over a largy dag-
Left Hand	The guide thrown for junks over a key day.

### 3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The quick	onyx	goblin	Jumps	aves the lazy dwast.
Left Hand	The guilt	anges.	geldino.	Auret2	over the large disent

### 4. Write with both hands 'A to Z' in small letters.

Right	a, b, c, d, e, f, g, h, i, j, k, 1, m, n, o, P, 12, 18, 5, +, u, v, w, x, Y, Z
Hand	a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, 3, s, t, u, v, w, x, y, Z
Left Hand	a, b, c, d, e, F, g, h, 1, 3, k, 1, m, n, a, p, g, 3, s, t, u, v, w, x, v z

5. Signature with Left Hand

		(	5	20
		GAL	Gentias	1
			n of Research Thesisin Ph.D. ( foinuddin (Research Scholar) :	
1	The GRUDDE	D09	261061200	1

Name*	Jay GARVADE	DO8	26/06/2003
Sex*	MALE	Date of Admission	
School/ College Name*	MP.LAW COLLEGIE	Nature of Hand*	Righthand.
Writing Skill (Languages)	English.	Best Writing Skill	
Class	BALLE. I	Level (Beginner/Lemer/Expert)	

	1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)	
Right Hand	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20	
Left Hand	11 12 13 14 15 16 17 18 19 20	

2. Write with both hands "The quick brown fox jumps over a lazy dog"

Right Hand	"The quick brown fox jumps over a lezy dog"		
Left Hand	"The quick becaum Jumps only a logy dog"		

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

Right	"The quick only goblin jumps over the lay dwarf"
Hand	"The quick brown jumps and the lagy dwarf"
Left Hand	"The quick brown jumprava the lagy dwarf"

	ABCDEFGHISKLMNOPARSTUVWXY2	
Hand	CONTRACTOR DE DUVWXX	
Left Hand	ABCDEFGHIJKLMNOPRESTUVWXX	

5. Signature with Left Hand



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			ionfor-Completion of Rese ai Mohd. Khaja Moinuddii	arch Thesisin Ph.D. (Forefsic Science) b
Name*		Ayan Pathan	DOB	19-08-2003
iex*		Male	Date of Admission	
ichool/ College N		M.P. law college	Nature of Hand*	Right hand
Vriting Si Language		English	Best Writing Skill	
Class		BALLB-I	Level (Beginner/Lemer/Expert)	
Right Hand	1	.2.3.4,5,6,7	8, 9, 10.	
		,2,3,4,5,6,7 12 13 17 15 16		
Hand Left Hand	U 2.	No. 13 17 15 16 Write with both hands "The q	17 18 19 20 uick brown fox jumps or	the second s
Hand Left	U 2.	No. 13 17 15 16 Write with both hands "The q	17 18 19 20 uick brown fox jumps or	eralazy dos' ОVӨБа lazy dog.
Hand Left Hand Right	U 2. 1	No. 13 17 15 16 Write with both hands "The q	17 18 19 20 uick brown fax jumps or 6 fox jumps	overa lazy dog.
Hand Left Hand Right Hand Left	U Z Th The	12 13 17 15 16 Write with both hands The q 18 9Wick brown	17 18 19 20 uick brown fox jumps or n fox jumps bx JUMBS OVO	overa lazy dog. N D. lazy dog.
Hand Left Hand Right Hand Left Hand Right Hand	U Z Th The	12 13 17 15 16 Write with both hands "The q NE 9 Wick brown C 9 Wick brown P Write with both hands "The q	17 18 19 20 uick brown fax jumps on 1 Fox JumPs 200 SMMA OVC uick onyx goblin jumps o	overa lazy dog. N D. lazy dog.
Hand Left Hand Right Hand Left Hand Right	U 2. Th The	12 13 17 15 16 Write with both hands The q IE 941 CK brown 941 CK brown 941 CK brown Write with both hands The q 2 944 CK ongx	17 18 19 20 uick brown fox jumps on n fox jumPs bx JuMB OVO uick onyx goblin jumps o goblin jumPs	оVӨЗСС 1029 дод. FV DL (029 доў. Werthe laxy dwart
Hand Left Hand Right Hand Left Hand Right Hand Left	U Th The The	12 13 17 15 16 Write with both hands The q IE 941 CK brown 941 CK brown 941 CK brown Write with both hands The q 2 944 CK ongx	17 18 19 20 uick brown fax jumps on 1 Fox jumps 20 Jum/2 OV uick onyx goblin jumps o goblin jum/2 <	over a lazy dog. in D. lazy dog. werthe lazy dwart over the lazy dwarf
Hand Left Hand Right Hand Left Hand Left Hand Left	U Th The The	12 13 17 15 16 Write with both hands The q NE QUICK brown QUICK brown Write with both hands The q QUICK ON JX 9 & QUICK ON JX 9 Write with both hands 'A to Z	17 18 19 20 uick brown fox jumps on 1 Fox jumPs 6x MiMs OV 16k onyx goblin jumps o goblin jumPs 0blin jumPs 0blin jumPs	over a lazy dog. in D. lazy dog. werthe lazy dwart over the lazy dwarf

5. Signature with Left Hand

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Handwriting Sample collection for-Completion of Research Thesisin Ph.D. (Forensic Science) by Mr. Siddiqui Mohd. Khaja Mojnuddin (Research Scholar) 2018

Name*	Siddique Alima	DOB	
Sex*	Famale	Date of Admission	
School/ College Name*		Nature of Hand*	
Writing Skill (Languages)		Best Writing Skill	
Class		Level (Beginner/Lerner/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1	2	3	4	5	6	7	89	10	
Left Hand		17	12	13	141	5	16	17-18	10	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	Jhe (	Quick Brown	n Fox Jumps or	ver a largy dog
Left Hand	The	Quick Bre	the Frenc June	bs ever a faith of a

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The quick only goblin Jumps over the lazy dressy
Left Hand	The quick only goblin Jumps outsille any back

4. Write with both hands 'A to Z' in small letters.

	in the event minima is the event of the bollows.
Right	ABC DEFGHIJKLMNOBORSTUVWXYZ.
Hand	ABCDERGHIJKLANOPORSUVWXY
Left	ABCIEFGULLANLIUNUPARSONNOS
Hand	2

5. Signature with Left Hand

6. Signature with Right Hand



Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forensic Science) by Mr. Siddiqui Mohd. Khaja Moinuddin (Research Scholar) 2018

Name*	Ayesha tadvi	DOB	
Sex*	Female	Date of Admission	
School/ College Name*	Boon English School	Nature of Hand*	
Writing Skill (Languages)		Best Writing Skill	
Class		Level (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right	1,2,3,4,5,6,7,8,9,10
Hand Left	11,12,13,14, 15, 16, 17, 18, 19, 20
Hand	1,1-2,2,7,9,0,10,10,11,20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick brown fox jumps over a lazy	dog.
Left Hand	The quick been for Jumps over	a cay x dig

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf' "The quick only goblin jumps over the lazy dwarf" "The quick only goblin Jumps over The logg dwarf Right Hand Left Hand

4. Write with both hands 'A to Z' in small letters,

Right Hand	a, b, c, d, e, b, g, h, I, j, k, l, m, n, o, p, q, n, s, t, u, v, W, x, y, 3
Left	a, b, c, d, e, A, &, b, i, b, k, k, m, n, O, p, a, a, S, t
Hand	V, X, 4, Z

5. Signature with Left Hand



Haushall



Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forensic Science) by Mr. Siddiqui Mohd. Khaja Moinuddin (Research Scholar) 2018

Name*	Pollant - R. Paular	DOB	13/09/2000
Sex*	Female	Date of Admission	20/10/2022
School/ College Name*	BAMU University.	Nature of Hand*	Right hand
Writing Skill (Languages)	Handa, English, Moratha	Best Writing Skill	English
Class	MS.C TYT	Level (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	7	2	З	4	5	6	7	8	9	10 20
Left Hand	31	12	13	14	15	16	17	18	19	20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The	quitck	brown	Fox	Ĵump	s ove	1 0	lazy	dog'
Left Hand	The	quick	brown	fox.	jumps	over	Q,	lazy	dog'

# 3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The	quitck	ONYX	dopjju	fumps	over	the	lary d	word,
Left Hand	The	gulick	облу≯	goblijn	jumps	over	the	lary	dwarg"

# 4. Write with both hands 'A to Z' in small letters.

Right	A	8	C	0	E	F	G	H	T	5	K	L	m	N	0	P	Q
Hand	D	0	T	U	V	1.1	×	N		7							
Left	A	0	C	D	E	F	G	H	T	J	K	L	M	N	0	P	Q
Left Hand	R	S	T	U	V	W	×	Y	2	÷							

5. Signature with Left Hand





Name*	Kalyan Sanjay Theog	DOB	22/01/2001
Sex*	male	Date of Admission	30/10/2021
School/ College Name*	DEDT. OF Chemister Or BADDE University	Nature of Hand*	Right - hand
Writing Skill (Languages)	Marathi , hindi , English	Best Writing Skill	
Class	MSC. IYS	Level (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1,2,3,4,5,6,7.8.9,10, 11,12,13,14,15,14,17,18,19,20
Left Hand	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,18,17 10,19,30

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The-	quick	brown	fax jumps	over a	Luzy	Jog-
Left Hand	the	quict	5 borown	for jumps	olée d	las	1.0

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The	quick	Олух	He Jobiin	Jumps	OVEE.	the	lazy	dworf
Left Hand	The gu	ick on	w and the second	blin jumps	aVer	the 1	927)	dwast	

4. Write with both hands 'A to Z' in small letters.

	A.bcdefghijks mnopq \$5+ UVWXYZ
Left Hand	abcdeighijklanopgrstuvwryz

5. Signature with Left Hand



Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forensic Science) by Mr. Si

iddiqui Mol	hd. Khaja	Moinuddin	(Research	Scholar)	2018

Name*	VishWajeet Raju Tak	DOB	612/2001
Sex*	Male	Date of Admission	20/10/
School/ College Name*	Dr. Babasaheb Ambedkar	Nature of Hand*	Right hand
Writing Skill (Languages)	Marathi, Hindi, English	Best Writing Skill	English
Class	MSC I	Level (Beginner/Lerner/ Expert)	Beginner

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1	2_	3	4	5	6 -	7	8	9		10
Right Hand Left Hand	11	12	13	14	15	16	17	1	8	19	20

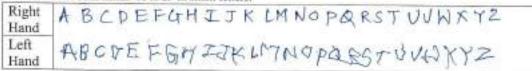
Write with both hands 'The quick brown fox jumps over a lazy dog' 2.

Right Hand	'The quick !	brown fox jumps over a lazy dog'
		brown for joints over a lazy dog.

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	" The quick only go	oblin jumps over	the lazy dwarf!
Left Hand	The guick only x	gazzin ukmes	over the lass dualif

4. Write with both hands 'A to Z' in small letters.



5. Signature with Left Hand



Vistorajeet



Name*	Samiksha Bajrang Mehtle	DOB	19/11/2000
Sex*	Female	Date of Admission	20/01/22
School/ College Name*	BAMO - University	Nature of Hand*	Right hand
Writing Skill (Languages)	Marathi, Hindi, English	Best Writing Skill	English
Class	MSC. Ist year	Level (Beginner/Lerner/ Expert)	V

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1,2,3,4,5,6,7,8,9,10	
Left Hand	11 12 13 14 15 76 17 18 19 20	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

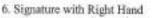
					jumps over			
Left Hand	The	quick	brown	fox	Jumps over	q.	lazy	dog

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The	quick	oryse	goblin	jumps	over	Jazy	dwarf
Left Hand	The	guict	onys	goblin	Jumps	over	Lazy	dwart.

4. Write with both hands 'A to Z' in small letters.

Right	a,b,c,d,e,f,g,h,1,J,k,l,m,n,o,P,9,8,S,J
Hand	u,v,w, 2, y,z
Left Hand	and a gir







Name*	SHAILESH PRAKASH CHINITAMAN	DOB	0005, MUL PO
Sex*	MALE	Date of Admission	20/ 10/ 2029
School/ College Name*	DR. BABASAHEB AMBEDEAN MARATHWADA UNIVERSITY	Nature of Hand*	EIGHT
Writing Skill (Languages)	ENGLISH	Best Writing Skill	NORMAL
Class	M.SC CHEMISTRY FX	Level (Beginner/Lerner/ Expert)	LERNEL

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1,2,3,4,5,6,4,8,9,10
Left Hand	11,12,13,14,15,16,17,18,19,20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

	The quick brown fox Jumps over a lezy dog.	
Left Hand	The quick boots for sumps over a lazy dag	

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

Right Hand	the	quick	onyx	JoHin	jumps	over	the	lazy	duarsf	
Left Hand	The	Shick	omex	goblin	lumps	CY62-	(he	ary .	dwight	

4. Write with both hands 'A to Z' in small letters.

Right Hand	MBICD EFG MILI, E, L, M, N, O P.Q. SISIF, CIN, W.X, YIZ
Left Hand	~10,5,d,8, f.g. L. S.J. K. L.M. 17.0, P.q. V, C. F. U. N. W. K. D. 2

6. Signature with Right Hand



Name*	Mangesh. k. futankar.	DOB	24-07-1999
Sex*	Male	Date of Admission	30-10-2621
School/ College Name*	(Dpt of chemisty)	Nature of Hand*	Right hand.
Writing Skill (Languages)		Best Writing Skill	
Class	Msc Iryr.	Level (Beginner/Lerner/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

1,2,3,4,5,6,7,8,9,10,11,12 Right Hand Left 11,12,13,14, 15,16,17, 18, 19,20. Hand

2. Write with both hands "The quick brown fox jumps over a lazy dog"

Right Hand	"The quick brown fox jumps over a lazy dog"
Left Hand	The quick bown tox jomps gree a lary day

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The quick onyx	gobin	jumps over lazy door
Left Hand			Jumps ones the losy doubt

4. Write with both hands 'A to Z' in small letters.

Right	ABCDE FGHIJKLMNOPQRSTUVWXYZ
Hand	-
Left	AIPICIDIE, F,G,H,C, J,K,C,M,N,D,P.O.P.
Hand	A.DICIDJE, F.G.H, E.J.K, C. M.N. D.F. Q.R. SIT. W, Y, W, X, Y, 2

6. Signature with Right Hand



Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forensic Science) by

Mr. Siddiqui Mohd. Khaja Moinuddin (Research Scholar) 2018

Name*	Anoy s. Joshi	DOB	22-01-99
Sex*	thale	Date of Admission	23-11-21
School/ College Name*	Borny university	Nature of Hand*	Right hand
Writing Skill (Languages)	Hindi', english, Marathi	Best Writing Skill	Masariki, english
Class	Misc 1st chemister	Level (Beginner/Lemer/ Expert)	Expett

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1, 2, 3, 4, 5, 6, 7, 8, 9, 19
Left Hand	12545678710

2. Write with both hands "The quick brown fox jumps over a lazy dog"

Right Hand	The quick boown for Jumps over a lazy dug
Left Hand	The quick brown for times over a larry dos

## 3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The	quick	ONYX goblin Jumps	oure	lozy dworf
Left Hand	Tho	Juick	ON SOBUTIONNES	CAPS	102ydwart

4. Write with both hands 'A to Z' in small letters.

	ABCDEFBIKTJKLMNOPBESTUUWXY2
Left Hand	ABODE PGADE KUMNOBRRSTVIWYZ

6. Signature with Right Hand

fraz

Jul



Name*	Dehade Pranjal Raju	DOB	
Sex*	Fernale	Date of Admission	
School/ College Name*	Dr. Babasaheb Ambedkar Marathuada, Urivervity	Nature of Hand*	
Writing Skill (Languages)		Best Writing Skill	
Class		Level (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right	123	4 5	6	4	3	9	10	11	12	13	14	15	16
Fiand	14 18 1	9 20											
Left Hand	12 8 20	56	7	9	9	Ţa	η	72	13	14	15	14	17-

2. Write with both hands "The quick brown fox jumps over a lazy dog"

i nand	The darge prome yes , Tambs ones a lash god
Left Hand	The quick brown for jumps over a locat day

3,	Write	with both	hands "T	he quick o	nyx goblin je	imps over t	he lazy dwarf	
							miller Hun	

Right Hand	Inc	quick	author	appli	n jun	मुइ	OVER	446	108.9	durant
Left Hand	The	quik k	्र क्यूर्विय	public	Jamps	OVE	e the	loey	-dunce	duart f

4. Write with both hands 'A to Z' in small letters

Right	4	5	3	C	D	E	6	Q,	H	T	T	K	L	M	NOP
Hand		-	1020	-			1253		10.2	100		1020		10	
Left Hand	n	b	C	J.	2	E	F	G	H	I	J	K	F	M	NOP

5. Signature with Left Hand



#### Handwriting Sample collection for-Completion of Research Thesisin Ph.D. (Forensic Science) by Mr.

. Siddiqui Mohd	Khaja Mo	inuddin (Research	Scholar) 2018
-----------------	----------	-------------------	---------------

Name*	Peoja Dhannaj Patil	DOB	
Sex*	Female	Date of Admission	
School/ College Name*	5.B.E.S. College of Sci A'bad	Nature of Hand*	
Writing Skill (Languages)	English	Best Writing Skill	
Class	MBC. 1 st Year	Level (Beginner/Lerner/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1	2	3	4	5	G	7	8	9	1	0	
Left Hand	п	12	13	14	( 15	; (	6	17	18	13	20	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The	quick	briou	on fo	a jumps	OVER	Q.	lazy dog.	
Left Hand	The	guick	palaro	100	jumps on	er a	hrz.	y dog-	

#### 3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

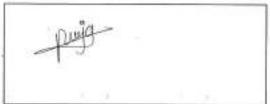
Right Hand	The	quick	auda	goblin	Jumps	overs	the	lazy	dwant.
Left Hand	The	qui< >	any a g	goldin J	KIN, ES, OVY	9 the	Jaze	Juio	05-

## 4. Write with both hands 'A to Z' in small letters.

ABCDEE GHIJKLMNO NVWXYZ Right P R 5 1 C Hand Left ABCOEFGH Hand

#### 5. Signature with Left Hand







Name*	YADAU SHUBHAM	DOB	08/09/2000
Sex*	Male	Date of Admission	-
School/ College Name*	Dept. of chemistry, Dr. BAM University, A. bad	Nature of Hand*	Right
Writing Skill (Languages)	English, Momathi	Best Writing Skill	English
Class	M.sc chemistry First year	Level (Beginner/Lemer/ Expert)	U

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	12345678910 11121314 1516171819 20
Left Hand	09 CL 91 71 81 21 811 11 25 12 12 16 17 19 290

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The	quick	brown	Fore	jumps	over	٩	lazy dog.
Left			brown					day

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The	quick	onyy	goblin	jump5	over	the	lazy	diana
Left Hand	7259	sure	Charl	sollin	PUNK	aren	the	kan o	wort.

4. Write with both hands 'A to Z' in small letters.

Right Hand	ABC DEGHESKLMNOP BRSTUVWXYZ
Left	ABCDFGHEJKLMNOPBRSTUVWXYZ
Hand	ABCPEGHEJKNNOPBRSTUVWXYZ

6. Signature with Right Hand



Name*	Jongid Gravind D.	DOB	17/03 1995
Sex*	Male	Date of Admission	
School/ College Name*	Deportment of chemistry, Dr. BAMU. Albed	Nature of Hand*	Ryht.
Writing Skill (Languages)	English. Hindi, Marulhi	Best Writing Skill	English .
Class	Mie. I.	Level (Beginner/Lerner/ Expert)	

1. Write 1 to 20 (I to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1	2.	3	Ч	5	6	7	8	9	10	11	12	13	14	15	14	17	18	1	9 24	0
Left Hand	1	2	3	4	5	5	7	٩,	9	(0	1)	12	ى	14	15	16	12	G	19	20	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick brown for tumps over a lary dog.	
Left Hand	The quick known fox rumps over a long for	

# 3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

Right Hand	The	quick	отук	giblin	Jamba	OVET	the	lozy	dwarf.	
Left Hand	The	guick	o NHA	poblin	SMAL	4/0*	He	happy	Junit	

4. Write with both hands 'A to Z' in small letters.

Right Hand	A	B	С	n	e	f	6	H :	r	T	ĸ	L	Μ	Ν	٥	P	Q	R	5	Т	V	V	ШΧ	YZ
Loft	4)																							Ľ.

6. Signature with Right Hand





Name*	Novghone Gomesh Dushnath	DOB	
Sex*	Male	Date of Admission	
School/ College Name*		Nature of Hand*	
Writing Skill (Languages)	Manathi, English, Himoli	Best Writing Skill	
Class	M.se fy	Level (Beginner/Lemer/ Export)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1.2 5 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Left Hand	123456789 10 11 12 13 14 15 16 10 19 19 20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The gick brown tox Jumps over a lary dog'
Left Hand	The quick brogaden for rumpy erver a prove along

3. Write	with both hands 'Th	e quick onyx goblin jumps over the lazy dwarf
Right Hand	The quick	onyx goblin Jumps over the lory decorf
Left Hand	The guilt	ALLAD OCH ARL CONT EILOR AND

4. Write with both hands 'A to Z' in small letters

Right	A.BCDEFGHIJKLMNOPQRSTUVWXY
Left	
Hand	A & CDEPGHIJKLMNOPQRSTUVWXYZ

6. Signature with Right Hand

tolongle ----



Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forensic Science) by Mr. S 018

Siddiqui Mohd.	Khaja Moinuddin	(Research	Scholar)	20

Name*	Gholap sagar Rolender	DOB	20/04/2022
Sex*	male	Date of Admission	20/10/2021
School/ College Name*	Bama . Oniversity	Nature of Hand*	Pight
Writing Skill (Languages)	English, Mazathi.	Best Writing Skill	
Class	M.Sc. JSt year	Level (Beginner/Lemer/ Expert)	Lerner

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1, 2, 3, 4, 5, 6, 7, 8, 9, 10.	
Left Hand	1, 2, 3, 4, 5, 6, 7, 8, 9, 10.	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick brown tox jumps over a lazy dag"	
Left Hand	The quick brown tox jumps over a lazy dog' The quick brown tox jumps over a lazy dog	

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	Ethe	quick	- an you	goblin	Junops	OVEL	the la	224	decasf
Left Hand	The	quick	onyx	poblin	jumps	over	the	Laz	y dwarf.

4. Write with both hands 'A to Z' in small letters.

Right Hand	arbicidiefigihisk Lminsp
Left Hand	quere, que, fisk Liminpa

5. Signature with Left Hand



SHULL



Name*	Ashish Arun Shinde.	DOB	27/07/2000
Sex*	Male	Date of Admission	28 oct 2021.
School/ College Name*	BAMY UNIVERSITY Department of Chemistry.	Nature of Hand*	Right
Writing Skill (Languages)	English, Hindi & Manarbl	Best Writing Skill	English
Class	MSC ISt year.	Level (Beginner/Lemen/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	t	2	3	4	5	6	7-	8	9	10
Left Hand	3	2	¥	9	5-	8	7	8	3	10

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right	A B E D EF-61-H The quick brown fox jumps pret
Hand	The quick house fox pumps over a local day day
Left Hand	The quick happen flox romas over a leasy dog deg.

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf' The quick only goblin jumps over the lazy doorf the quick only goblin jumps over the lazy doorf Right Hand Left Hand

4. Write with both hands 'A to Z' in small letters.

Right	ABCDEFGHIJKLMNOPORSTUVWXYZ
Hand	DECRETER HT THE MNO PORE TUNNERS
Hand	ABCDEFGHIJKLINNOPORSTUVWXYZ ABCDEFGHIJKLINNOPORSTUVWXYZ ABCDEFGHIJKLINNOPORSTUVWXYZ

5. Signature with Left Hand



Name*	Ragade Sushawt Sanjay	DOB	29/04/2000
Sex*	Male	Dute of Admission	28/10/2021
School/ College Name*	BAMU University	Nature of Hand*	Right
Writing Skill (Languages)	English	Best Writing Skill	
Class	MSC P.Y.	Level (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1, 2, 3, 4, 5, 6, 7, 8, 9, 10
Left	1, 2, 3, 4, 5, 6, 7, 8, 9, 10
Hand	11, 12, 18, 14, 15, 16, 17, 18, 19, 20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	THE	quick	brown	fox	jumps	i over	a	lary	dog '
Left Hand	The	THEILK	brown	Feit	20mmbs	over	٩	lany	-1=3

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The	quick	아거기	goblin	Jumps	over	thelany	-lwart'
Left Hand	Twe.	quite	on the Is	blin junja	over t	m lau	1 durant	

4. Write with both hands 'A to Z' in small letters.

Right Hand	a	Ь	C	4	e	Ŧ	Gh	ì.ì	KL	19	4	0 P	9 8	51	ų	VWZ	42
Left Hand	٩	5	e.	٦	**	F	, h	U	KI	m	V	P1	13	tv	v w	* yo	-

5. Signature with Left Hand



Name*	Hpitik 5. Bobade	DOB	30/08/2000
Sex*	Male	Date of Admission	20/10/2029
School/ College Name*	Dp. Babadaheb Ambedikan Manatheada Uni. A.Bad	Nature of Hand*	Right
Writing Skill (Languages)	Eng, Mare, Hindi	Best Writing Skill	English, Maranhi
Class	M.Sc - 234	Level (Beginner/Lerner/ Expert)	Expant

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1.	2,	3,	4,	5,	б,	7,	8,	Э,	(0.
Left Hand	±. 11,	12	, 13	19.	15.	16	17.	18	19	20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The	quick	brown	fox	jumps	OVEP	۵	lazy	dog.
Left Hand	The	quicl	brown ic brocer	Fat	e u'umpe	ov@r	٩	1024	das

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The	quick	ONYX	goblin	jumps	over the	2 192y dworf.
Left Hand	The	quick	; only	to ext	oling when	who uses	2 1924 duconif. the long twart

4. Write with both hands 'A to Z' in small letters.

Right Hand	a, b, c, d, e, f, g, h, 1, j, K, 1, m, n; o, p, q, p s, +, u, v, w, x, y, z,	
Left Hand	a.b. c. d. a. F. g. K. c.	

5. Signature with Left Hand

Booode

BBBBade



Name*	Amuta Ashok Rout	DOB	18
Sex*	female	Date of Admission	
School/ College Name*	BAMU	Nature of Hand*	
Writing Skill (Languages)		Best Writing Skill	
Class		Level (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

2	. 3.	4 2	6	1	8	1	10	11	12	15	19	15
52	17	18	19	6	20	8	9	10	( )	12_	13	14
	2 20	2 5	2 3 4 3	2 9 4 9 0		2 3 4 5 6 7	2305678	23055789	2305678910	23055289101	230 55289 10 1.12	2 17 18 19 20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The.	quick	brown	fork	jamps	OVYY	a,	lozy	dog
Left Hand	The	gyike.	Promon	6v	jumps	Over	4	19PY	2

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

Right Hand	-The	quick	ODUR	goblin	jumps	OVEY	the	102 4	dworf
Left Hand	the	gic K	onya g	goblin 1°5/m	ium pus	OVER	the 1	MZZA A	land

4. Write with both hands 'A to Z' in small letters.

Right	A	13	C,	D	E	F	G	Ŧ	1		ΓK	L	14	N	0	P	G.	R	5	1	U
Hand	V	W	х	Y	2																
Left	11	1 -	2 1	D	E	F	6	н	I.	7	K-	1_	M	NO	1	₽ 0	1 P	S	7	2	V
Hand	U	13	<	X	~	-											X				

6. Signature with Right Hand

Marila



Name*	Proving Hearing Dhisbassi	DOB	06/06/2001
Sex*	female.	Date of Admission	20/10/2022
School/ College Name*	BAMU University	Nature of Hand*	Right Hand
Writing Skill (Languages)	Hindi, English, Monathi	Best Writing Skill	English.
Class	Msc - Ist year.	Level (Beginner/Lemer/ Expert)	0

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1	2	3	4	5	6	7	8	9 11	0
Right Hand Left Hand	$\mu$	(2	13	14	15	16	17	18	19	20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand	The quick	brown fox jumps ever a lazy day.
Left Hand	Concernant of the second	brown fox jumps over a lazy day.

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The	quick	onyx	goblin	jumps	aver	the	lacy	dworf.
Left Hand	The	quick	puhx	goblin	jumps	OVER	the	lazy	duconf

4. Write with both hands 'A to Z' in small letters.

Right Hand	ABCDEFGHIJKLMNOPØRSTUNNXYZ
Left	ABODE FEHJJKLMNOP&RSTUUWXYZ
Hand	N

5. Signature with Left Hand

Josephinis

Alberbasy



Name*	Saruk Rukhmin Babasaluk	DOB	02/05/2000
Sex*	Female	Date of Admission	~
School/ College Name*	B.A.Bry, Awtorgobod	Nature of Hand*	Right
Writing Skill (Languages)		Best Writing Skill	
Class		Level (Beginner/Lemer/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	4	2	3	4	s	6	.л	8	9	10
Right Hand Left Hand	14	12	15	140	15	[G	17.	18	19	20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right	The	quick	broubo	Rox	jumps	OVen		α.	lazy	dog
Left Hand	THR	¢űĸĸ	preserve	Rat	jeants a	over .	9	iny	dqt.	U

#### 3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand	The	quick	onyx	gobin	jumps	aver	the	Lozy	gmoot
Left Hand	The	quick quick	ONY	Aqp)4	NUMBS	0105	And d	45Y	d wasd-

4. Write with both hands 'A to Z' in small letters.

Right ABCDEFGHTJKLMNOPGRS Hand TUVWX4Z. Left Hand

5. Signature with Left Hand

At they



Name*	Sonali D. Chavan	DOB	
Sex*	Female	Date of Admission	
School/ College Name*		Nature of Hand*	
Writing Skill (Languages)		Best Writing Skill	
Class		Level (Beginner/Lerner/ Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand	1	2	3	4	ł	5	6	7	8	9 10
Left Hand	11	12	13	14	15	15	(7	18	19	20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right	The quick brown for jumps over a larry dog
Hand	
Left	The quick betown for jumps over a lazy dog.
Hand	De la la succe a gag aug.

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

The quick onyse goblin fumpe over the lazy dwarf Right Hand The quick only gollin jumps over the lazy durang Left Hand

4. Write with both hands 'A to Z' in small letters.

Right Hand Left	a	Ъ	C	d	6	f	9.	h	i	ĩ	K	2	m	n	0	b	9	Y	S	t	LL.	-
Hand	V	w	×	YZ			r			đ						1	N.					
Left				100																		
Hand																						



ta



Handwriting Sample collection for-Completion of Research Thesis in Ph.D. (Forensic Science) by Mr. Siddiqui Mohd Khaja Moinuddin (Research Scholar) 2018

Name	Appenvia Sanah Malhotha	DOB	in (research Scholar) 2018
Sex	Female	Date of Admission	18/01/1998
School Name	NICES	Nature of Hand	August
Writing Skill (Languages)	English Hindi	Best Writing Skill	Right English
Class	MA	Level	
	AM	(Beginner/Lerner/Expert)	Corporat

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

4. Write with both hands 'A to Z' in small letters.

5. Signature with Left Hand

quar



GALGOTIAS

Handwriting Sample collection for-Completion of Research Thesis in

Ph.4	). (Forens)	c Science	) by Mr	. Siddiqui	Mohd Khaja	Moinuddin (	Research	Scholar) 2018	
	FT	A 4 1			And the second s		and the second process of a local second	and the second second second	

Name	Sharad Brafus Binch	DOB	25-04-1497
Sex	male	Date of Admission	1-08-2018
School Name	NICAS	Nature of Hand	Right hand .
Writing Skill (Languages)	English, Hind?	Best Writing Skill	English
Class	Mise (FS)	Level (Beginner/Lemer/Expert)	Learner

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

4. Write with both hands 'A to Z' in small letters.

5. Signature with Left Hand

Deata

Fratas



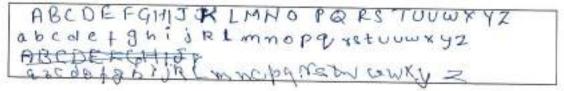
Name	MANYENDRA S. J.		DOB	21-01-1995	
Sex	Mole		Date of Admission	Riguit	
School Name			Nature of Hand		
Writing Skill (Languages)	Hindi \$ 21	ngliph	Best Writing Skill	- Allen	
Class		0	Level (Beginser/Lemer/Expert)	Lerner	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

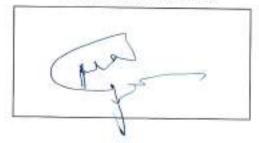
2. Write with both hands "The quick brown fox jumps over a lazy dog"

		brown					
Time	quice	<i>stalled</i>	Fac	Jumps	Quer	Lazy	Dog Y

4. Write with both hands "A to Z' in small letters.



5. Signature with Left Hand







2 TIAS

Handwriting Sample collection for-Completion of Research Thesis in

Ph.D. (Forensic Science) by Mr. Siddigai Mohd Khaja Moinaddin (Research Scholar) 2018

Name	SHUBHAM THAKKE	DOB	ddin (Research Scholar) 2018	
Sex	Male	Date of Admission	25/03/1336	
School Name	NICES	Nature of Hand	0.11	
Writing Skill (Languages)	English, Hindi	Best Writing Skill	Right English	
Class	MISC	Level (Beginner/Lemer/Expert)	Lennen	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

1,2,3,4,5,6,7,8,3,10 05, 21, 81, 71, 31, 21, 11, 8, 2111

2. Write with both hands. 'The quick brown fox jumps over a lazy dog'

The	quick	bridialia	fex	jumps	OVEN		lazy dos	
The	quic k.	brown	Pa	J'HUMBRS	0007	्म	Jary	day_

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

The quick only goolin jumps over the Lary dwarf The queick anyx goolin jumps over the lazy Rugat

4. Write with both hands 'A to Z' in small letters,

5. Signature with Left Hand



Handwriting Sample collection for-Completion of Research Thesis in

Name	SHRI KRICHNA		uddin (Research Scholar) 2018
	and the same of the second states of the	DOB	24/09/1995
Sex	MALE	Date of Admission	16/Aug/2019
School Name	LNIN MICES	Nature of Hand	Right
Writing Skill (Languages)	English /Hindi	Best Writing Skill	English
Class	M.A. Chimindogy	Level (Beginner/Lerner/Expert)	Expert

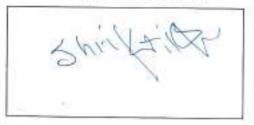
L. Write 1 to 20 (I to 10 with Right Hand 11 to 20 With Left Hand)

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

4. Write with both hands 'A to Z' in small letters.

5. Signature with Left Hand





GALGOTIAS UNIVERSITY no Semala collection for Convolution of Decem

Handwriting Sample collection for-Completion of Research Thesis in Ph.D. (Forensic Science) by Mr. Siddiqui Mohd Khaja Moinuddin (Research Scholar) 2018

Name	Parveen verma	DOB	08-12-1991
Sex	male	Date of Admission	0.0.10.10
School Name	MICES BSF	Nature of Hand	Right Hand
Writing Skill (Languages)	English.	Best Writing Skill	- Jun tong
Class		Level (Beginner/Lemer/Expert)	Learner

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

4. Write with both hands 'A to Z' in small letters.

5. Signature with Left Hand



Jawan Vone



Handwriting Sample collection for-Completion of Research Thesis in

Name	ANEL KUMAR	Siddiqui Mehd Khaja Moinud DOB	04-07-199/
Sex	MALE	Date of Admission	
School Name	NICES. DEF	Nature of Hand	Right
Writing Skill Languages}		Best Writing Skill	MAND
Class		Level (Beginner/Lenner/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

1,2,3,4,5,6,7,8,9,10, 11 12 13191516 17 18 193 12345678910

2. Write with both hands "The quick brown fox jumps over a lazy dog"

"The aviar brown for Jumps over a lazy day" The pack brown for Jumps over a hazy dog

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

The awick only goulin sums over the lary dragorf. The evice ONYX BOOR IN JUMPS OVER the Sozy dwarf

Write with both hands 'A to Z' in small letters.

ABRIDEFGHIJKLMNOP ØRSTUVWXYZ ABGDEFGHIJKLMNOPQRSTUVWXYZ

5. Signature with Left Hand







LS LTY G/

Name	MANEE DEV KESHARI	DOB	29-01-1994
Sex	MALE	Date of Admission	01-01-2018
School Name	LNTN - NICFS	Nature of Hand	Right
Writing Skill (Languages)	ENGLISH, HINDI	Best Writing Skill	ENGLISH
Class	M.Sc.	Level (Beginner/Lémer/Expert)	

1. Write 1	to 20 (1 to	10 with Right Ha	nd 11 to 20 With L	eft Hand)
------------	-------------	------------------	--------------------	-----------

1	2	34	5	678	9	10		
1}	12	13	19	15 15	17	3(	19 20	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

ight. Th	e quick brown for jump	os over a lazy dag
	e quick bown fox jump	s over a Lopy to
) [	3. Write with both hands 'The quick onyx goblin jumps over	
H-JL	e quick only goblin jumps over	the lazy dwarf.
ft-The	e quick only a gablin jumps c	mathelazy dwa
	4. Write with both hands 'A to Z' in small letters.	
Alabed	defghigk lun oppratuv wa	(yz
Fabr	defahijklmnopqosturu	VX YZ
		V

5. Signature with Left Hand

Monae Dev Kertherni

Have Der Kestar



## UNIVERSITY

Handwriting Sample collection for-Completion of Research Thesis in

Name	ADHYA AFORA	DOB	27/06/97
Sex	Male	Date of Admission	2.018
School Name	NICPS	Nature of Hand	Right
Writing Skill (Languages)	Bylish, Stindi	Best Writing Skill	0
Class		Level (Beginner/Lerner/Expert)	

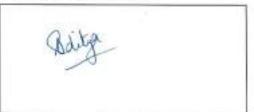
1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

4. Write with both hands 'A to Z' in small letters.

5. Signature with Left Hand





Handwriting Sample collection for-Completion of Research Thesis in Ph.D. (Forensic Science) by Mr. Siddle

Name	Bratak Crossal	DOB	01/06/1999
Sex	Male	Date of Admission	20-08-2019
School Name	Little Tury Public School	Nature of Hand	the second se
Writing Skill (Languages)	Hindi, English	Best Writing Skill	Right hand English
Class	M.S.C. Advance science	Level (Beginner/Lemer/Expert)	Educat

1. Write I to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

12	3	4	5	67	8	9	10	
リル	(3	14	L	5/6	12	1	21920	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

The quick brown fox jumps over a larry dog The wich becam for junts over a lazy dog

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

The quick once goblin jumps over the lazy drand. The quick Confor poblin jurps over the largy durait.

4. Write with both hands 'A to Z' in small letters.

abc dedahijk l m nopanstuvwxyz · ICa efshijk Quropast vvwxyz

5. Signature with Left Hand

zereck



UNIVERSITY

Handwriting Sample collection for-Completion of Research Thesis in

Name	Satyaham	DOB	12-01-1997
Sex	Male	Date of Admission	30-08-2019
School Name	NICES	Nature of Hand	Right hand
Writing Skill (Languages)	English, Hindi.	Best Writing Skill	Englieb
Class	Itt year, (sen -D)	Level (Beginner/Lerner/Expert)	· Enfeat

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

1	2_	3	4	5	6	7	8	3	10
1/	12_	13	14	15	16	FI	12	19	20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

The quick business for jumps over a lozy dog. The quick brown for sumps over a lazy dog

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

The quick only goblin jumps over the losy during.

4. Write with both hands 'A to Z' in small letters.

abedebahijk Imnoppratuvwzyz abedebahijk Imnoppratuvwzyz

5. Signature with Left Hand



abyerham



UNIVERSITY

Handwriting Sample collection for-Completion of Research Thesis in Ph.D. (Forensic Science) by Mr. Siddigui Mohd Khaig Mohmiddin (Research Scholer) a

Name	Graninia Sagar	DOB	idin (Research Scholar) 2018
Sex	Female	Date of Admission	
School Name	NICES	Nature of Hand	Right Hand
Writing Skill (Languages)		Best Writing Skill	
Class	M.S.C. Forensie Sciences	Level (Beginner/Lerner/Expert)	

I.	Write I to 20 (1	to 10 with Right Hand I	1 to 20 With Left Hand)
----	------------------	-------------------------	-------------------------

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

The	quick	briton	tox pumps over a locy alog
The	quiet	howin	too jumps own a back day

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

The quick only goblin juncps over the lary dwarf The girch once goblin glumps aren the lacy devery

4. Write with both hands 'A to Z' in small letters.

5. Signature with Left Hand



Graning Saga



Handwriting Sample collection for-Completion of Research Thesis in

Ph.D. (Forensic Science) by Mr. Siddiqui Mohd Khaja Moinuddin (Research Scholar) 2018

Name	SWETA	DOB	
Sex.	female	Date of Admission	
School Name	KV Partip richas Nicks	Nature of Hand	Right
Writing Skill (Languages)		Best Writing Skill	0
Class	MSC Fatenois Service	Level (Beginnen/Lemer/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

12345678410

11 12 13 14 15 16 17 18 19 20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

The quick brown fox jumps over a lazy clag. The applick between for jumps over a large dog. 3. Write with both hands "The quick onyx goblin jumps over the large dwarf"

The quick only goblin jumps over the lazy dwarf. The quick once goldin jumps over the logy durant.

4. Write with both hands 'A to Z' in small letters.

abedefghijk Lmnoyg rst uvwzyz abcdebghijkimnopgrotuvwxyz.

- 5. Signature with Left Hand
- 6. Signature with Right Hand

5

Sweta_

Ameta



Handwriting Sample collection for-Completion of Research Thesis in Ph.D. (Forensic Scier e) by Mr. Siddieui Mohd Kh

Name	Manoj Racurat	DOB	19-10-1946
Sex	Made	Date of Admission	
School Name	AUCHINAS NICES	Nature of Hund	REAL
Writing Skill (Languages)		Best Writing Skill	0
Class	MC	Level	

1. Write I to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

11 12 13 14 15 16 17 18 19 20 12345678910

(Beginner/Lerner/Expert)

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

The	quiek	Prenon	tox	jumpe	OUEY	A	classy deg
The	quict	brown	to	x Jumps	0400	2	9 lazz doze

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

The quick any goalt's fumpe over the darry dwarf The quick only goblin jormps ower the have

4. Write with both hands 'A to Z' in small letters.

Report a b c d e fg h fj K un nopg & st u v a bediefshijklimnopgistuuredez

5. Signature with Left Hand

MSe

Romá



Handwriting Sample collection for-Completion of Research Thesis in

Ph.D. (Forensic Science) by Mr. Siddiqui Mohd Khaja Moinuddin (Research Scholar) 2018

Name	Rolas Konnon	DOB	26/03/1994
Sex	MALE	Date of Admission	Sel0311114
School Name	LNJN-NJLFS	Nature of Hand	RIGHT
Writing Skill (Languages)	ENE, MIN, MARATHIL, ARAROC, RUSURATI -	Best Writing Skill	MARATHE
Class	1st year MA.	Level (Beginner/Lemer/Expert)	Staring

L. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

The quick thrown four gunges and a lapy dag. The quick thrown for julits over a very dag

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

4. Write with both hands 'A to Z' in small letters.

5. Signature with Left Hand





Name



Handwriting Sample collection for-Completion of Research Thesis in Ph.D. (Forensic Science) by Mr. Siddigui Mohd Khaja Moin

	Add to a state of the state of	and the second se		from the	men denoid / 2018
÷	Abhishele hondach	DOB	12	112	93

Sex	Male	Date of Admission	\$13120
School Name	NICPS	Nature of Hand	RIGHT
Writing Skill (Languages)	English, Hindi	Best Writing Skill	Eiglisch mind.
Class	MSc Form	Level (Beginner/Lemer/Expert)	B. harm

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

1 2	3	4	5	6	785	10
1/12	81	14-	21	31	71-51102	

2. Write with both hands "The quick brown fox jumps over a lazy dog"

The	quick	brown	tex	jumps	pun a	logy day
The	quick.	muord	Tay	p zquam	y mane	Bard god

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

The quick ongoe goblin jumps once the lagy dowerf mildog zono orthe pearly brand ЪÅ Jehn

4. Write with both hands 'A to Z' in small letters.

ABCDEFSHIGKLMNOPBRSTUVWXYZ	_
And and the construction of the state of the	
ZYXWUUTSROOMMLKGIHJFEDCBA'	
all de cabre i	
abene ffille i mwopg an sturway	
abide for isk I muopan sturways	

6. Signature with Right Hand

Allute



Handwriting Sample collection for-Completion of Research Thesis in much Sciences by Mr. Siddigui Mohd Khaia Mohauddin (Research Sola Ph D /For

range.	Steph Kumpy Oas	DOB	02/06/1987
Sex	male	Date of Admission	02105/1784
School Name	NECES, BOP		Red II I
Writing Skill (Languages)	WESES, ISSE	Best Writing Skill	Right hand
Class	WICES (BSE)	Level (Beginner/Lerner/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

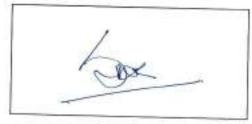
3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf"

The quick only gowin jumps over the Lozy dwarf The quick anothe Joblin jumps over the last dwarf.

4. Write with both hands 'A to Z' in small letters.

ABCDEFGHIJKLMNOP QRSTUVWXY2 ABEDEFGHIJKLMNOPORSTUVNXYZ

5. Signature with Left Hand







Ph.D. (Perensic	Science) by Mr.	Siddiqui	Mohd Khaja 1	Moinuddin	(Research Scholar) 2018
17 34	0.4	and the second			freesement sentimity 2018

Name	Sillandes high	DOB DOB	25-06-1995
Sex	Male	Date of Admission	17/2
School Name	NELPS BEP	Nature of Hand	Right Hand
Writing Skill (Languages)		Best Writing Skill	
Class		Level (Beginner/Lemer/Expert)	Leaver

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

quick ought gooding sumps our the wary disart The "The quice ways golding I rupe over the dazy drab"

4. Write with both hands 'A to Z' in small letters.

5. Signature with Left Hand





# GALGOTIAS

Handwriting Sample collection for-Completion of Research Thesis in Ph.D. (Forensic Science) by Mr. Siddigui Mohd Khaja Mojmeldin (Research Scholard

Name	Opsivi Gupta	DOB DOB	
Sex	Female	Date of Admission	27/02/97
School Name	LNON NICES	Nature of Hand	Right hand
Writing Skill (Languages)	English, Hindi	Best Writing Skill	English
Class	M.Sc (FS)	Level (Beginner/Lerner/Expert)	Beginnel

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

The Qu	ick blown foo	cjumps e	iver a	lary rog	1.1
The qui	ck brown fo	er jumps	wer o	h larger	dog .

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf"

4. Write with both hands 'A to Z' in small letters.

5. Signature with Left Hand





Ph.D. (Forensic Science) by	Mr. Siddiaui	Mohd Khaia Moinuddia	Paranah	Calinhard	2010
and the second sec		and a second a resolution of the	research	Scholar)	2018

Name	SHIVANI BHARGAVA	DOB	addin (Research Scholar) 2018
Sex	FEMALE	Date of Admission	
School Name	NICES	Nature of Hand	RIGHT HANDED
Writing Skill (Languages)		Best Writing Skill	RIGHT HANDED
Class	Msc.	Level (Beginner/Lemer/Expert)	

1.	Write I to 20 ()	to 10 with Right	Hand 11 to 2	20 With Left Hand)
----	------------------	------------------	--------------	--------------------

					6				
11	12	13	14	15	15	17	11	19	20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

The.	quick	brown	tox	jumps	ove	a.	lazy	alog .	
Jha	quick	biolon	fex.	jumps	(WR)	Q,	lagy	alog . dag .	

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

onys goblin jumps over a the logy dwary. The quick. The 2 wick

4. Write with both hands 'A to Z' in small letters.

a b	¢	d	e	1 2	h	ι	5	k	lm	n	0	p	2	34	x	t	u	Y	w	ж	Ч	8.
a b	5	d	2/	9	6	ί.	jk	1	Pa	n	0-	þ	2	57	Ş	£	u	Y	W	X	y	2

5. Signature with Left Hand

hiven

Stread



Ph.D. (Forensic Science) by Mr. Siddiqui Mohd Khaja Moinuddin (Research Scholar) 2018

Name	RITIKA BHARDWAJ	DOB	ouni (research Scholar) 2018
Sex	FEM4LE	Date of Admission	
School Name	NICES	Nature of Hand	RIGHT
Writing Skill (Languages)		Best Writing Skill	
Class	MSC - FORENSICS	Level (Beginner/Lerner/Expert)	

1. Write I to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

The quick brown for jumps over a losy dog. The quick brown for jumps ower a losy dog

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

4. Write with both hands 'A to Z' in small letters.

5. Signature with Left Hand





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Handwriting Sample collection for-Completion of Research Thesis in

Ph.D. (Forensic Science) by Mr. Siddiqui Mohd Khaja Moinuddin (Research Scholar) 2018

Name	SWETA JAISWAL	DOB	-			
Sex	Female	Date of Admission	-			
School Name	NICES	Nature of Hand	Right handled			
Writing Skill (Languages)		Best Writing Skill	- Jan Portad			
Class	MSC. FORENEIC	Level (Beginner/Lerner/Expert)				

1,	Write 1 to 20 (1	o 10 with Right H	Hand 11 to 20 With Left Hand)
----	------------------	-------------------	-------------------------------

1	2	3	4	5	6	7	2	9	10
21	12	13	14	15	16	17	18	19	2.0

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

The quick brown for jumps over a lazy day. The quick brown for jumps own a logy day.

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

The quick any poblin jumps over the lagy dwarf. The quick any goblin jumps over the lagy dwarf

4. Write with both hands 'A to Z' in small letters.

5. Signature with Left Hand





Handwriting Sample collection for-Completion of Research Thesis in

Ph.D. (Forensic Science) by Mr. Siddiqui Mohd Khaja Moinuddin (Research Scholar) 2018

Name	SONU MANDECHA	DOB	
Sex	FEMALE	Date of Admission	
School Name		Nature of Hand	Right
Writing Skill (Languages)		Best Writing Skill	4
Class	Mac [FS]	Level (Beginner/Lerner/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

1	6-	5.5	16	20	
2	3	15	17		
4.	4.	F.L.	10		
5.	10	15	10		

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

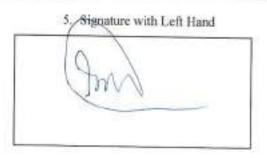
The such brown for jumps over a lasy dog The quick brown for importants over a last dog.

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

The quick on you goblin jumps over the lazy dwary. The quick impa polis jumps own the logge during.

4. Write with both hands 'A to Z' in small letters.

abedefghisk & mnale Astuvian yz ascalefohijklynoppustur ar xoy





Name



Handwriting Sample collection for-Completion of Research Thesis in

Ph.D. (Forensic Science) by Mr. Siddiqui Mohd Khaja Moinuddin (Research Scholar) 2018

334000W	KINCHON MUNAKNED	DUB 27-09-1916	
Sex	FEMALE	Date of Admission	
School Name	Nicks	Nature of Hand	RIGHT-MANDED
Writing Skill (Languages)		Best Writing Skill	
Class	Misc	Level (Beginner/Lerner/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

4	2	3	4	5	5	쿠	8 9	10	
n	12	- 13	14	1	5	16	17 18	19 20	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

The quice brown for jumps own a barry dogs the quick brown for fumps over a large dog

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

the growthe any goldin jumps over the large durant. The openick only & golden prompts area the longe dwork

4. Write with both hands 'A to Z' in small letters.

B C DE FGHIJKLAND POWRST UVWXYZ ABOBFFGHIJKLMNODORSTUV LVX YZ

5. Signature with Left Hand

6. Signature with Right Hand

hinchon



Handwriting Sample collection for-Completion of Research Thesis in Ph.D. (Forensic Science) by Mr. Siddigui Mohd Khaia Moinweldin (Research Schola

Name	LAIBA SIRAJ	DOB DOB	in (research Sential) 20
Sex	FEMALE	Date of Admission	
School Name	NICES	Nature of Hand	RIGHT
Writing Skill (Languages)		Best Writing Skill	integri i
Class	MSC	Level (Beginner/Lemer/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

4. Write with both hands 'A to Z' in small letters.

5. Signature with Left Hand





GA ÷5

Handwriting Sample collection for-Completion of Research Thesis in Ph.D. (Forensic Science) by Mr. Siddiqui Mohd Khaja Moinuddin (Research Sch alars 2019

Name	Appens Rubuy	DOB	23/07/1997
Sex	Female 0	Date of Admission	1.41.00
School Name	NICES	Nature of Hand	Right -
Writing Skill (Languages)		Best Writing Skill	0
Class	1st year (2nd unuster)	Level (Beginner/Lerner/Expert)	

1.	Write 1	to 20 (1	10 10	with Right	Hand 11	to 20 Wit	h Left Hand)
----	---------	----------	-------	------------	---------	-----------	--------------

*		1.1			1.	1	(2)	1		- SY
	1	2	3	ч	5	6	7	8	9	10
							17-			

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

4. Write with both hands 'A to Z' in small letters.

5. Signature with Left Hand

Aparna Dubey

Ac	anong and	HAL	
-		X	
1		0	



GALGOTIAS Handwriting Sample collection for-Completion of Research Thesis in

Ph.D. (Forensic Science) by Mr. Siddigui Mohd Khaja Moinuddin (Research Scholary 2018

Name	Rasini Matara	DOB	09.11.1996
Sex	Female	Date of Admission	and the second
School Name	NICES	Nature of Hand	Right
Writing Skill (Languages)		Best Writing Skill	
Class	MCC Foreneic	Level (Beginner/Lemer/Expert)	

I. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

1	2	34	S	6	7	В	1	10	
14	12	42 1	11	4.10	4.0	171	10	40	57

12 12 13 14 15 16 17 18 19 20

2. Write with both hands 'The quick brown fox jumps over a hazy dog'

The	quick	brown	fox	jumps	over	a.	lary	day
the.	quick	brown.	-fox	Jumps	OWN	A	lazy	dag

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

The	quick	onyx	Joblin	Jumps	oner	the	lary	dwarf
the	quick	snyx	goldin	Jumps	0.498.72	the	lazy	dwarf

4. Write with both hands 'A to Z' in small letters.

5. Signature with Left Hand



Jahreniala ??



GALGOTIAS

Handwriting Sample collection for-Completion of Research Thesis in Ph.D. (Forensic Science) by Mr. Siddioui Mohd Khaia Mohnuddin (Research Scholar) 2018

Name	Hasshika	DOB	02 06 1992
Sex	Fomale	Date of Admission	
School Name	NICES	Nature of Hand	Right
Writing Skill (Languages)		Best Writing Skill	
Class	MSc.	Level (Beginner/Lerner/Expert)	

L. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

1 2 3 4 5 6 7 8 9 10

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

The	quick l	25CTW/T	fox	jumps	out a.	lay day .
The qui	ok boows	n fex	jumps	OVER	a lazy	dog-

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

4. Write with both hands 'A to Z' in small letters.

5. Signature with Left Hand

Harte





Handwriting Sample collection for-Completion of Research Thesis in Ph.D. (Forensic Science) by Mr. Siddigui Mohd Khaja Majnuddin (Research Scholar) 2018

Name	pullipoo	DOB	
Sex	female	Date of Admission	
School Name	picts	Nature of Hand	word
Writing Skill (Languages)	1997 - Sec	Best Writing Skill	
Class	Hise	Level (Beginner/Lerner/Expert)	

1. Write I to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

12 13 14 15 16 17 18 19 1 234 5672 910 11 20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

The quick brown for jumps even a king dog.

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf"

The quick only goblin jumps own the lagy dwarf The quick only goblin jumps over the lagy dwarf

4. Write with both hands 'A to Z' in small letters.

5. Signature with Left Hand





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Handwriting Sample collection for-Completion of Research Thesis in

Ph.D. (Forensic Science) by Mr. Siddiqui Mohd Khaja Moinuddin (Research Scholar) 2018

Name	towarder	DOB	
Sex	Mole	Date of Admission	
School Name	Nicks	Nature of Hand	hour handed
Writing Skill (Languages)		Best Writing Skill	
Class	Mac	Level (Beginner/Lemer/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

19	34	1 St + 89 10	
11	12	13 14 15 16 17 18 19 20	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

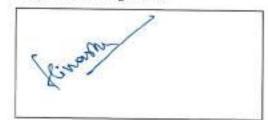
The puck brown for joings over the legy dog The quick brown for jumps over a large day

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf"

The purchanget gotten primps over the byg dwarf The quick only gold in jumps over the lagy dwarf.

4. Write with both hands 'A to Z' in small letters.

5. Signature with Left Hand





Handwriting Sample collection for-Completion of Research Thesis in

Name	Avibunuo	DOB DOB	
Sex	Female	Date of Admission	
School Name	NICES	Nature of Hand	Right hand
Writing Skill (Languages)		Best Writing Skill	0
Class	M-5c Forensia Science	Level (Beginner/Lemer/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

1	2	3	4	5	6	7	8	9	10
<i>II</i>	12	13	14	15	16	17	18	19	20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

The quick brown fox jumps over a lary dog. the quick town for jumps own a havy dog

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

The quick only goblin jumps over the lay y due

4. Write with both hands 'A to Z' in small letters.

abedebghijklmnopqusturwxyz

5. Signature with Left Hand



Handwriting Sample collection for-Completion of Research Thesis in

Name	JALSAI MUNDA	DOB	addin (Research Scholar) 2018
Sex		Date of Admission	30-03-1989
School Name	NICES, BSF	Nature of Hand	
Writing Skill (Languages)	2, 19.5	Best Writing Skill	RIBTHT HAND
Class		Level (Beginner/Lenser/Exnert)	

L. Write 1 to 20 (1 to 10 with Right Hand T1 to 20 With Left Hand)

123456789 10 11 12 13. 14 15 16 17 18 17 20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

The pulick brown Fox JUMPS over dog The quick boro com for Jumps over a Lazy dog (Righ have)

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf"

The guick only a goblin Jumps over the Lazy dwarf

4. Write with both hands 'A to Z' in small letters.

ABCOEFGHIJKLMNOPQRSTUVWXYZ

5. Signature with Left Hand

6. Signature with Right Hand

Jalsa'e mundy

Takaé munde

5.

Name



Handwriting Sample collection for-Completion of Research Thesis in Ph.D. (Forenzie Science) by Mr. 2015

These (rolensic acience) by I	r. Siddiqui Mohd Khaja Moinuddin (Research Scholar) 2	10.10
DEN DAC	DOD	0018

Tioner	OPEN DAS	DOB	
Sex		Date of Admission	
School Name	NICES (BSF)	Nature of Hand	0
Writing Skill (Languages)	(usis cost)	Best Writing Skill	Reglet have .
Class		Level (Beginner/Lerner/Export)	1

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

3 4 5 6 7 8 9 2 10 11 12 13 14 15 16 17 18 19 20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

The quick brown fox Jumps own a lazy dog. The quict brown for Jumps Over a large dog.

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

The quick only goblin Jumps over The lazy dwarf The quick only goblin Jumps over The lazy dwarf

4. Write with both hands "A to Z' in small letters,

abodebghigkimnopgkstuv wxys.abedebghijkimnopgks turwryz.

5. Signature with Left Hand

Upon other

Upen Das.



Ph.D. (Forensic Science) by Mr. Siddiqui Mohd Khuja Moimuddin (Research Scholar) 2018

Name	Rohul Mondal	DOB	uddin (Research Scholer) 2018
Sex	and mornar	Date of Admission	08/05/1992
School Name	BSE NICES	Nature of Hand	0.1.1.1
Writing Skill (Languages)	DIF NICES	Best Writing Skill	Right Hand
Class		Level (Beginner/Lemer/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

-1	2.	З	4	5	G	7	89	10
B f	213	1	41	5	16	17	18	19 20

2. Write with both hands 'The quick brown for jumps over a lazy dog'

The quick brown for Jumps 3. Write with both hands "The quid	ck onyx goblin jumps over the lazy dwarf"
The quick only goblin	Jumps over the lazy dwark
The guick Only a goblin	Jomps over the lazy duarf.
4. Write with both hands 'A to	
bedefghijkimne	oparstuxwxyz
bodefghijkl mi	skxwuutstadou

Rabel	Mondal

	this -

Rahul Mondel



Ph.D. (Forensic Science) by Mr. Siddiqui Mohd Khaja Moinuddin (Research Scholar) 2018

Name	Sheveta Umre	DOB	02-09-17
Sex	F	Date of Admission	×
School Name		Nature of Hand	Right Handed.
Writing Skill (Languages)	English	Best Writing Skill	ragin radices.
Class	MSc 1stylen	Level (Beginner/Lemer/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

4. Write with both hands 'A to Z' in small letters.

5. Signature with Left Hand





45

Handwriting Sample collection for-Completion of Research Thesis in

Ph.D. (Forensic Science) by Mr. Siddiqui Mohd Khaja Moinuddin (Research Scholar) 2018

Name	Nicha Agenoal	DOB	06/08/1995
Sex	E U	Date of Admission	1001113
School Name	NICES	Nature of Hand	RIGHT
Writing Skill (Languages)	ENGLISH, HIND	Best Writing Skill	ENGUSH
Class		Level (Beginner/Lerner/Expert)	

L. Write 1 to 20 (1 to	10 with Right Hand I	1 to 20 With Left Hand)
------------------------	----------------------	-------------------------

R	1	2	3	45 6	7	89	10	11	12-	13 1	4	15	16	17-18	19	20
L	3	2	3	455	7	89	10	11 12	1	\$ 14	15	IG (*	A (6	3 19 13	2	

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

The g	ulet	brown	fox	jumps	over	a	Peror	dog .
772 9	yck	baowin	for	sumps	OVE	q	Lagy	deg

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

4. Write with both hands 'A to Z' in small letters.

5. Signature with Left Hand





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Handwriting Sample collection for Completion of Research Thesis in Ph.D. (Forensic Science) by Mr. Siddiau Mad Mad Mad

Name	P. Rahal	pon	ddin (Research Scholar) 2018
Sex		DOB	08/5/96
	Male	Date of Admission	
School Name	Kendziya Vichaloja	Nature of Hand	DSIA
Writing Skill	Hiridi', English,	Best Writing Skill	Right
(Languages)	Malayslash	Dest writing Skill	English
Class		Level	
		(Beginner/Lerner/Expert)	Learner

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

123456789 10 11 12 1314 15 16 17 18 19 20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

4. Write with both hands 'A to Z' in small letters.

5. Signature with Left Hand







UNIVERSITY

Ph.D. (Forensic Science) by Mr. Siddiqui Mohd Khaja Moinuddin (Research Scholar) 2018

Name	GANGA ANNA MATHEWI	DOB 30-04-1991	
Sex	FEMALE	Date of Admission	
School Name	NICES MHA	Nature of Hand	RIGHT
Writing Skill (Languages)	ENGUSH, MAURIALAM	Best Writing Skill	
Class		Level (Beginner/Lerner/Expert)	

1. Write I to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

1,2,3,4,5,6,7,8,9,10 R.12,13,14,15,16,17,18,19,20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

The quick brown fax junips over a lary dog. The quick brown fax jumps over a larg dog

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf"

- The quick only goblin jumps over the law dwarf. The quick only a goblin jumps over the law dwarf
  - 4. Write with both hands *A to Z* in small letters.

```
A,B,C,O,E,F,G,H,J,J,K,L,M,N,OP,G,R,S,TH,V,W,A,Y,Z
ab.c,d,e,f,g,h,i,j,k,l,m,n,o,p,q,y,stuymings
abod-of-ghijth.Im.napaxet.urmit.uz.
```

5. Signature with Left Hand





Ph.D. (Forensic Science) by Mr. Siddiqui Mohd Khaja Moinuddin (Research Scholar) 2018

Name	LEKHASHRI -S	DOB	24/05/1998
Sex	F	Date of Admission	
School Name		Nature of Hand	Right
Writing Skill (Languages)	English, Hurdi Kannade	Best Writing Skill	English
Class		Level (Beginner/Lerner/Expert)	Beginner

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

1,2,3,4,5,6,7,8,9,10 11,12,13,14,15,16,17,18,19,20

2. Write with both hands "The quick brown fox jumps over a lazy dog"

The	quick	brown	for jur	what over	a lazi	y dog.		
The	quick	brown	fore	jumps	aves a	longy	dog	
		e with both hars				- Antoine		

The quick anos once goblin jumps over the easy dwarf. The quick only grobblin jumps ones the lage

4. Write with both hands 'A to Z' in small letters.

a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, f, g, u, v, w, z, y, g. a, b, E, d, e, f, g, h, 1, f M, n, O, p, g, (n, 8, 1, M), 2, w, F, g

5. Signature with Left Hand

Lep haster



Handwriting Sample collection for-Completion of Research Thesis in

Ph.D. (Forensic Science) by Mr. Siddiqui Mohd Khaja Moinuddin (Research Scholar) 2018

Name	Sameria Simha	DOB	29 11 1998
Sex	Male	Date of Admission	-
School Name	2.1728-15-1	Nature of Hand	Right
Writing Skill (Languages)	Kannada English Hindi	Best Writing Skill	English, Kannada.
Class	MSe FS	Level (Beginner/Lerner/Expert)	Learner

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

1,2,3,4	15,6,7,8,9,10	
C 11		

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf"

4. Write with both hands 'A to Z' in small letters.

5. Signature with Left Hand





Name	D. (Forensic Science by Mr. ) GURMUKH SING #	DOB	07/01/1989
Sex	more	Date of Admission	11 1101
School Name		Nature of Hand	neut
Writing Skill (Languages)		Best Writing Skill	
Class		Level (Beginner/Lemer/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

1234567891011 121314151617 181920 122456789 19 11 12 12 14 15 18 17 15

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

The quick brown box sompts over to lazy of

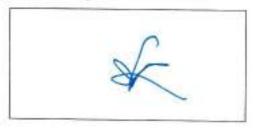
3. Write with both hands 'The quick ony's goblin jumps over the lazy dwarf'

The gener when goblin sumps over the hazy day The Third Disk galding tupe only the way doob

4. Write with both hands 'A to Z' in small letters.

AS COEPSKIJKOMM OP BASTUV WAY. sected 21 Darrob destract

5. Signature with Left Hand



6



Handwriting Sample collection for-Completion of Research Thesis in Ph.D. (Forensic Science) by Mr. Siddigui Mohd Kh

Name	IMTIYAZ AHME	DOB	A + 69 + 0 + 0 - (m 08)
Sex	malo	Date of Admission	24-02-2020 13 08
School Nanfé	BSP	Nature of Hand	Right hand sheft
Writing Skill (Languages)	Bughsh	Best Writing Skill	night hang skept
Class	10+2+ BAIL	Level (Beginner/Lerner/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)



2. Write with both hands 'The quick brown fox jumps over a lazy dog'

The auck brown pox sumps over a logy day. meaning too oumps over a logy dos

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

The owner only soblin sumpsover the hasy doorst The center only gooling time Lover the tog doord

4. Write with both hands 'A to Z' in small letters.

a, le, c, de, ibg his & him wo POR STUVWXXZ

5. Signature with Left Hand



Ph.D. (Forensic Science) by Mr. Siddigui Mohd Khaia Moinuddin (R

Name	SUKUMAR DAS	DOB 03-06-1991	odin (Research Scholar) 2018
Sex	MALE	Date of Admission	
School Name	NICES (BSE)		RIGHT HAND
Writing Skill (Languages)	ENGLISH	Best Writing Skill	PARTI HAND
Class		Level (Beginner/Lerner/Expert)	

1.	Write I to 20 (1	to 10 with Right Hand 11 to 20 With Left	Hand)
----	------------------	------------------------------------------	-------

123456789	10	11 12 13 14 15 16 17 18 19 20
13426783	10	1) 12 13 14 15 16 17 18 19 20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

The quick brown tox sumps over a lagy 203 the quark brains for James are a lesy dig

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

The quick brown top Jumbs over a large dog. The quick broom for sumpor over a lary day.

4. Write with both hands 'A to Z' in small letters.

ABEDEFGHIJKLMNOPQRSTUVWXYZ ABEDEFQHIOKZMNDDQRBTUVWXXZ

5. Signature with Left Hand

Sukampoz

Sulumar



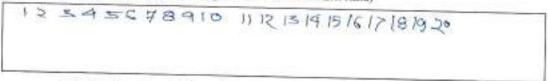
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Handwriting Sample collection for-Completion of Research Thesis in Die Die and

Ph.D. (Potensic Science) (	y Mr. Siddiqui	Mohd Khaja Moinuddin (Research Scholar) 2018	£.
	A REAL PROPERTY AND ADDRESS OF ADDRESS		

Name	Aboulla 41- Masum		17/02/1991
Sex	male	Date of Admission	14/ 02/ 1991
School Name	NICES	Nature of Hand	R/ Hang
Writing Skill (Languages)	ENGLISH	Best Writing Skill	C. C. C. C. D.
Class		Level (Boginner/Lemer/Expert)	

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)



2. Write with both hands "The quick brown fox jumps over a lazy dog"

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

4. Write with both hands 'A to Z' in small letters.

5. Signature with Left Hand

WASKW





Name	RATESH SINTA	DOB	DI APRIL 1975
Sex	m	Date of Admission	24-FEB 2020
School Name	BSF	Nature of Hand	TT TEO ROAD
Writing Skill (Languages)	ENGLISH	Best Writing Skill	
Class		Level (Beginner/Lerner/Experi)	Beginner.

1. Write I to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

1.2.3.4.5.6.7.8.9.10. 11.12, 13.14, 10, 16.17.18.19.20

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

"The quick brown tox jumps over a lagy day" "The quick brown Fox jumps over a lazy dog"

3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

"The quick only goblen jumps a logy dwarf."

4. Write with both hands 'A to Z' in small letters.

A B C D E F G H I JK LM NOPORSTUNWX Y3. A B C D E F G HIJ KLMNOP 928 STUV XX YZ

5. Signature with Left Hand





Handwriting Sample collection for-Completion of Research Thesis in

Name	Madamlet	DOB	15.10.1990
Sex	Male	Date of Admission	
School Name	B.S.F	Nature of Hand	
Writing Skill (Languages)	a case ac. o	Best Writing Skill	Right hund.
Class		Level (Beginner/Lemer/Expert)	

1. Write I to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

1	1.	2,	3,	4,	s,	6,7,	8. 9, 10.	
	12.	12.	13,	14-	15.	16, 17.	18, 19,20	

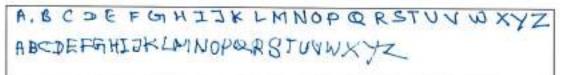
2. Write with both hands 'The quick brown fox jumps over a lazy dog'

The quick brown Fox Jumps over a lary dog. The quick born Fox Jumps over a lary dog

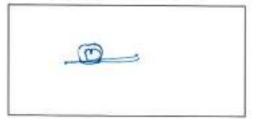
3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf"

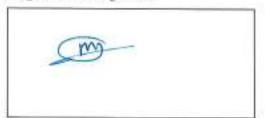
The suith only goblin Jumps over the lazy dwarf The guide only poblin Junps and the lost dwarf

4. Write with both hands 'A to Z' in small letters.



5. Signature with Left Hand







Ph.D. (Forensic Science) by Mr. Siddiqui Mohd Khaja Moinuddin (Research Scholar) 2018

Name	SAMAN PAR SING	DOB	10, 17, 91
Sex	MALE	Date of Admission	24-02-2020
School Name	NICESCASE	Nature of Hand	Right hand
Writing Skill (Languages)	English	Best Writing Skill	0
Class		Level (Beginner/Lerner/Expert)	

1. Write I to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

1,2,3,4,5,6,7,8,9,10 11,12,13,14,15-16,17,18,19.70

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

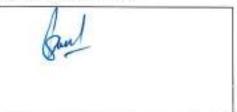
The quick brown for Jump over a Lary d The quick brown for Jumps over a Larry dob 3. Write with both hands "The quick only goldin jumps over the lazy dwarf"

The quick onys goblin Jumps and the razy dwarf The guide any gablim Jumps and the Lazy Iwart

4. Write with both hands 'A to Z' in small letters.

A, B, C, D, E FGHIJKLMN · P@RSTUVWXY2 ABCDEFE HISKLANOPRRSTUNNY2

5. Signature with Left Hand





Handwriting Sample collection for Completion of Research Thesis in

Ph.D. (Forensic Science) by Mr. Siddiqui Mohd Khaja Moinuddin (Research Scholar) 2018

Name	Dinesh badhawel	DOB	01-12-1832
Sex		Date of Admission	
School Name	BSF. TATOFS	Nature of Hand	Right Hand
Writing Skill (Languages)	021 1 21 1012	Best Writing Skill	is and initia
Class		Level (Beginner/Lerner/Expert)	Right women

1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

4. Write with both hands 'A to Z' in small letters.

5. Signature with Left Hand



(At



Handwriting Sample collection for-Completion of Research Thesis in

Name	DHIRESH Ky Singh	DOB	01-07-1981
Sex	MALE	Date of Admission	1101
School Name	BSF	Nature of Hand	Right
Writing Skill (Languages)	Emplish	Best Writing Skill	- Jus
Class	0	Level (Beginner/Lemer/Expert)	

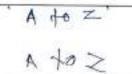
1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

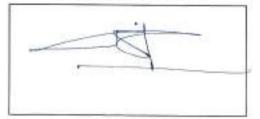
3. Write with both hands "The quick onyx goblin jumps over the lazy dwarf"

The quick only goblin jumps over the Lozy door The quick only godin Damps over the Lazy dong

4. Write with both hands 'A to Z' in small letters.



5. Signature with Left Hand



1

# Chapter 4



GALGOTIA5 UNIVERSITY

Handwriting Sample collection for-Completion of Research Thesis in Ph.D. (Forensic Science) by Mr. Siddiqui Mohd Khaja Moinuddin (Research Scholar) 2018

Name	R.L. SHARMA	DOB	24-07-1970
Sex	Male	Date of Admission	
School Name	NICES	Nature of Hand	Right Hand
Writing Skill (Languages)		Best Writing Skill	
Class		Level (Beginner/Lemer/Expert)	

L. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

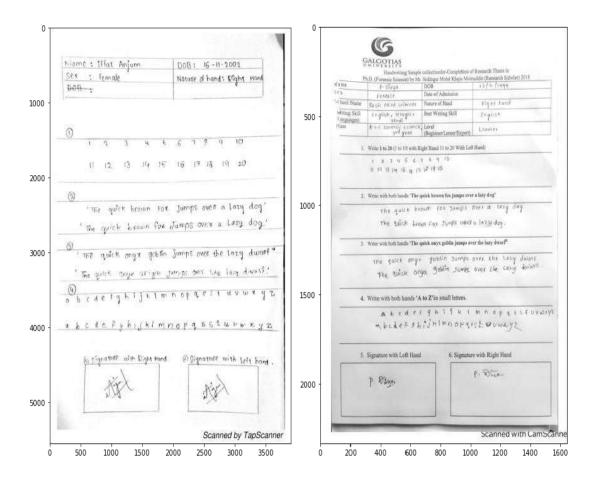
1	1_	3	4 5	6	7 8	9	10 -	RH
11	12	13	14	15	15	17	18	19 70- 2H

2. Write with both hands 'The quick brown fox jumps over a lazy dog'

1	٦	Ъ	9	Such		or pure	9*	blin	Jar	-ps	OV	er	44.2	Laz	1	dwo	4-*		
1	11	hut	7	hok	or	inge	916k	η	201	npa	01	in in	the	Jus .	9	dwar	<b>}</b> ~		
		4,	Writ	ie w	ith b	oth l	ands	<b>'</b> A)	to Z'	in sr	nall l	ette	rs.						
	a	6	e	d	Ł	ŧ	9	h	ł	7	k	1	m	m	0	PS	t v d i	lur	w
9	1	6	5	d	4	1	2										2 23		
		5. 1	Sign	atu	e wi		ght AT Hi	and			6.	Sig	hatur	e wit	h B	41 ight 1	land		
		0											D						

## 4.2.4 Systematic Analysis

During this examination, we categories the full feature set of three datasets into separate categories based on their characteristics. Techniques such as deep learning have been applied to the detection and prediction of handwritten text. Its purpose is to determine the range of variables whom apply for testing as well as the method of testing. Everything was done on the same computer, with the identical CPU and memory configurations (both of which ran at 1.6 GHz and 8 G). All of the study classifiers were evaluated, and four methods was implemented for testing and training, as well as for model assessment and evaluation.



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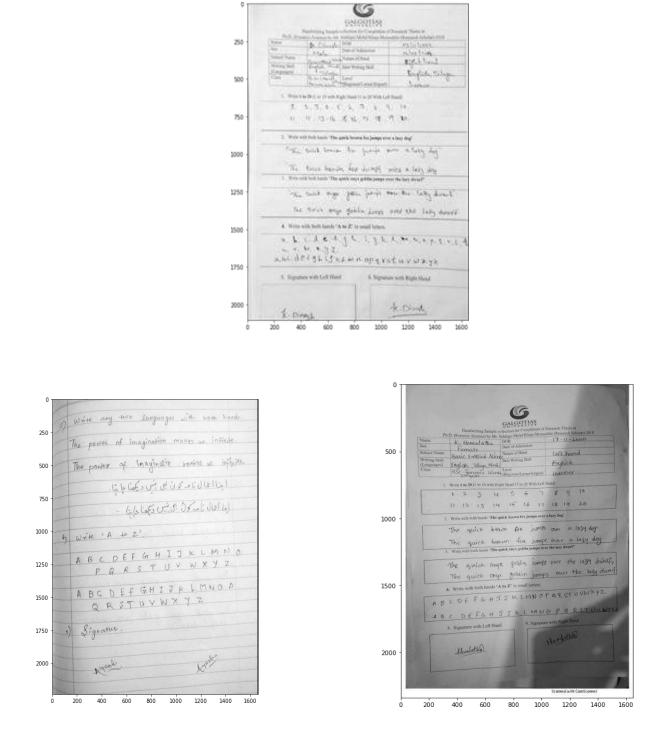


Figure.1: Image edges in handwriting paragraph

Chapter 4

## **Results and Discussions**

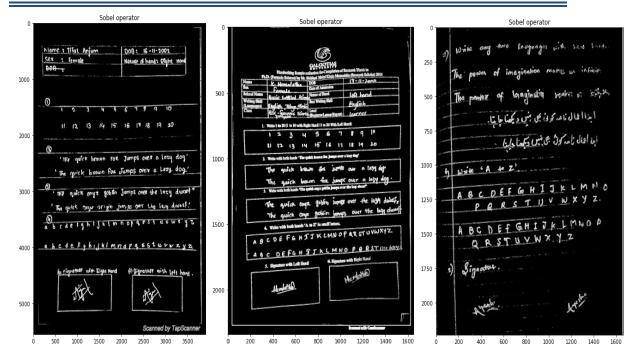


Figure 1 depicts an analysis of the handwriting paragraph using the edges of images as reference points. There are a total of 108 photos in this collection. The pictures dataset generates five different outputs. Deep learning techniques were used to extract handwritten text from images, which was then processed. The handwritten notes are depicted in these photographs. Notes scribbled on the left-hand side of the page by hand According to the findings of this study, the left-hand side can correctly pronounce proper words when compared to right-hand side. It is separated into two sets: first exercise set (which comprises 70% of the dataset) as well as the validation set (which comprises the remaining 30% of the dataset) (30 percent ). First and foremost, we must import original photos. Figure 1 depicts an analysis of the photos' results with edges. Images with edges have been pre-processed before being uploaded. Implementing handwriting paragraphs in order to classify picture data is one of the goals. Images The data for the Predictive handwriting paragraph was collected in either structured or an unstructured format. In most cases, structured data is pre-processed before to being used in the testing and training stages.

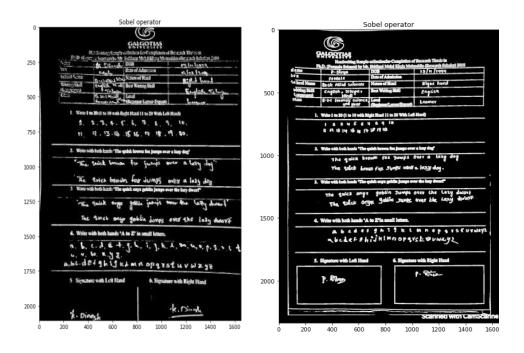
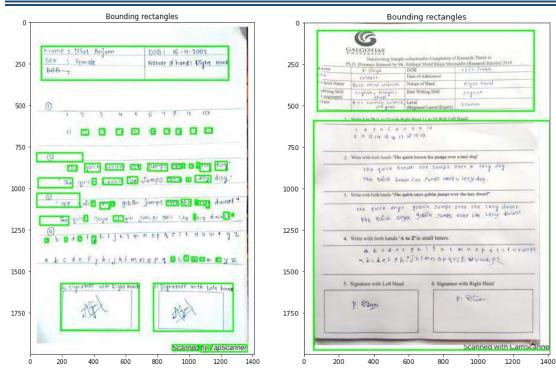


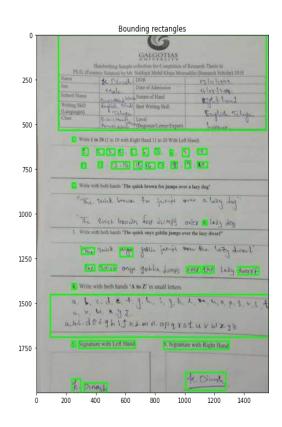
Figure.2 Outputs of Sobel Operators having Background which is Dark

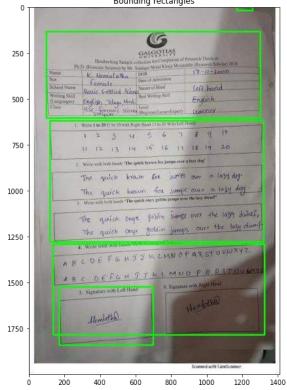
Image analysis of the paragraphs of handwriting in Fig.2 using dark images. Following the pre-processing of the pictures. Those photographs have been transformed into black and white ones. The background of the handwritten text has been highlighted using optical character recognition (OCR) technology. The meaning of the words in the paragraph is evident based on this finding. In this case, we have changed the background to a dark colour. For picture classification, unstructured material that is unshaped and distributed is a significant problem. Organizing and selecting important qualities from unstructured data can be difficult. We've figured out how to deal with unstructured data.



#### **Results and Discussions**







Bounding rectangles

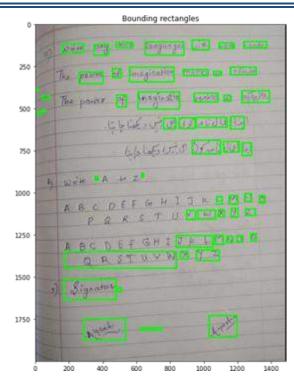
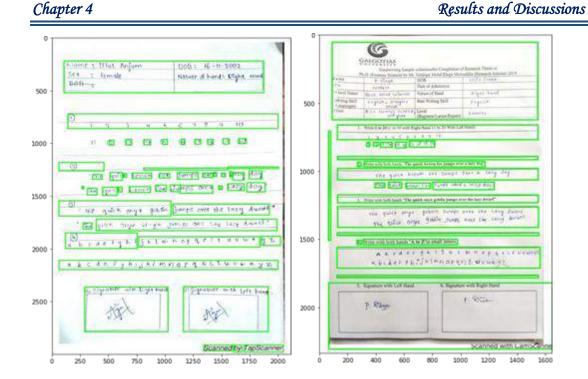
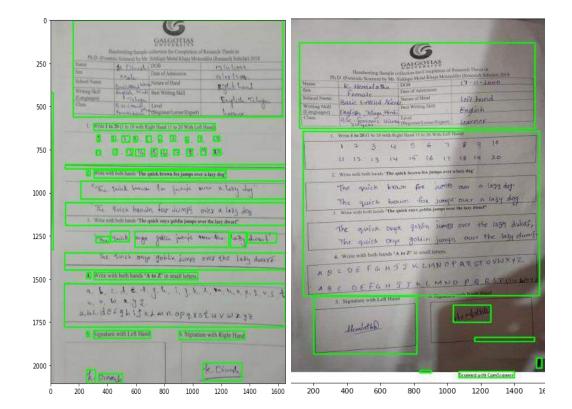


Figure.3 Outputs of Bounding Rectangles having Background which is Dark

Figure 3 illustrates how to evaluate a handwriting paragraph by using boundary rectangles. There are a total of 108 photos in this data set. Here are five of the photographs that were produced as a consequence of the search. The photos of handwritten text have been processed using optical character recognition (OCR) algorithms. These findings demonstrate also that word with a boundary rectangle effectively distinguishes between different words. Terms without a defining rectangle, on the other hand, are not clearly intelligible words. The text within the bounding box demonstrates what is familiar, while the text beyond the bounding box demonstrates what is familiar, while the text beyond the bounding box demonstrates what is unfamiliar. In this section, we simply pre-processed the text associated with the photographs. For data identification, the size of the dataset images is a high-cardinality field. Other strongly linked variables that provide the same information as the redundant variables should be deleted from the data set. If one predictor variable can be linearly predicted by another with a moderate to high degree of correlation, the relationship is said to be strong. Collinearity can lead some regression coefficients to have incorrect edges when there is no colinearity.





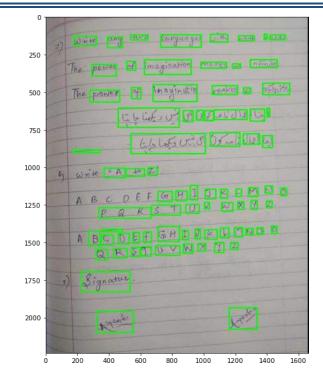


Figure.4 Analyze of ambidextrous persons of the handwriting features

The characteristics of ambidextrous persons' handwriting are examined in Figure 4. Finally, we may determine whether the left hand can write correct words when compared to the right hand in this step of the analysis process. The photos of handwritten text have been processed using optical character recognition (OCR) algorithms. We can deduce from the results that many of the words are not understandable. We are unable to read them clearly. We can write with our left hand, but it does not predict clear recognition when compared to writing with our right hand. Each line of the paragraph is underlined in green to emphasise its importance. The text within the bounding box demonstrates what is familiar, while the text beyond the bounding box demonstrates what is unfamiliar. For each model, all split up into two sections, which are called testing and training. In this case, we want to keep only the content within the box. Handwriting paragraphs were classified using the convolution neural network technique, which was developed by us. We have captured a total of 11 photos of handwriting. The outcomes categorize the appropriate content distribution within the boundary. Texts are easily understandable as a result of this output.

# 4.3 Study by Utilizing CNN of Variation in Handwriting in English and Urdu Language

When only a handwriting image is provided, automatic transcription of the handwriting takes places, and this is referred to as handwriting recognition. Manual matching of checks and signatures will be employed as banks for the authenticity of the documents. In forensics, handwriting correlating algorithms can assist handwriting analyzers in making more accurate predictions about the author's identity. And for handwriting recognition system to analyzing and presenting this handwriting, it must first be scanned into the computer and then saved. A wide range of applications of handwriting, such as mail routing, transcription papers and processor forms, faxes, as well as checks may be anticipated in the future. A variety of other applications are also feasible.

The vast majority of the efforts of research were devoted to the subject of character recognition (CR), both because of the potential applications and because of the imitating reading of human behaviour, difficulties involved in. OHR (Offline Handwritten Recognition) is a new feature that is designed to work in both English as well as Urdu. In particular, on the elimination of background noise from words and the development of character segmentation algorithms that have a higher recognition rate, it focuses. Noise can be present in scanned images, as well as de-noising of image techniques include noise reduction, binarization, as well as size normalisation, amongst other things. Utilizing the PSO (Particle Swarm Optimization) method, word and character segmentation can be accomplished. Following that, the divided samples are utilized for the feature extraction stage, which is the final step in the process: word recognition.

#### 4.3.1 Methodology

The suggested study is primarily concerned with the removal of noise from images as well as picture segmentation approaches combined with recognition methods. In Fig. 5, you can see the proposed flow diagram.

By performing the following procedure, it is possible to accomplish effective handwriting recognition:

1. *Pre-processing:* The given procedure entails transformation as useful information of raw data that can be read by a human being through a series of processes. In pre-processing, one of the phases is image digitization, which is the process of converting a picture into a gray level image as well as transformed as a binary image. Binarization is among the steps in pre-processing. Noise reduction: In most cases, noise can be found in the scanned photos. Gaps, f Filled loops, bumps, and unconnected dotted lines are the most common types of noise that can be found in photographs. As a result, noise removal is carried out in order to achieve successful recognition.

2. *Normalization:* The method of normalisation is the removal of differences from visuals without changing the identity of the words themselves. The primary method of normalisation entails image cleaning, and the subsequent procedure, namely skew correction, is carried out after that step. Following that, the process of character size normalisation and line detection begins.

3. Segmentation: Following that, segmentation occurs, in which the characters included within the image are separated and rearranged as needed in order to provide distinction between the characters themselves. This also contributes to the simplification of the recognition procedure. The types of segmentation that are involved are image segmentation and script segmentation. This is accomplished by the use of line, word, as well as segmentation of character. This approach, known as PSO (Particle Swarm Optimization), segmented the problem and improved by iteratively optimising the problem, the solution. It is among the segmentation methods which can be used to segment problems.

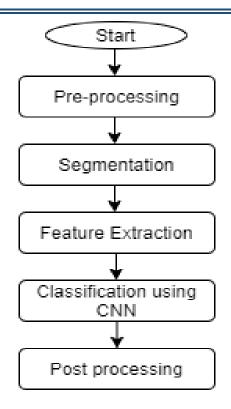


Fig. 5. For Recognition of Handwritten, the Proposed Flow Diagram

Step1: Read an image file of .jpg

Step2: Convert RGB images to grayscale by eliminating the hue and saturation information while retaining the luminance

Step3: Find a global threshold (Th) that can be used to convert a grayscale image to an image of two intensity

Step4: If image_intensity > Th Current_intnsity=1 else Current_intnsity=0 end

Step5: Perform a morphing operation such that the image changes no longer. For each pixel If 5 or more pixels of its 3×3 neighbourhood are 1s Pixel_value=1; Else Pixel_value=0;

Step6: Perform horizontal projection of the image to extract lines for each line performs vertical projection to extract words

Step7: For each word connected component analysis has done to find each symbol

Fig. 6. Algorithm for processing of Image

#### 1. Feature Extraction

Through collecting the feature set during this process, it is possible to boost the recognition rate even in the context of the smallest number of components. There are several different types of feature extractions. For example, Principal Component Analysis (PCA), Chain Code (CC), and so forth were among the techniques used. The input to the classification algorithm is from the output of Feature in order to make classification more convenient.

#### 2. Classification

When it comes to handwritten recognition, classification is critical since it plays a role in decision-making. The performance of the classifier is determined on the quality of the features. When utilizing a deep neural network classifier, it is necessary to offer as input, the classifier output. Specifically, a Deep Neural Network (DNN) can be represented as an artificial neural network where there are multiple hidden layers present amongst the output layer as well as the input layer between the input and the output layer.

#### 3. Post-Processing

As the later phases of recognition, the result of the post-processing is a structural text format in which the text can be read. Character errors are frequently segmented and classified incorrectly, which causes problems. As a result, this phase is carried out in order to eradicate these faults. Error removal is accomplished by the use of statistical approaches and dictionary lookups, respectively. Thus, after completing the process, it is possible to achieve effective text recognition results.

Noise reduction is accomplished through the use of a Modified Median Filter (fig.7) When it comes to photos, pre-processing is concerned only with reduction or elimination of noise. In terms of noise, there are several varieties to choose from. These include noise, salt, film grain, quantization (uniform noise), shot, periodic noise and anisotropy noise. In order to produce efficient findings, a modified mechanism known as the K-Algorithm is employed in study domains.

Fig. 7. Modified Median filter

Binarization and filtering are two stages in this strategy, and they are both necessary. Filtering and noise reduction processes have been performed using a resampling technique, which has been used in conjunction with other algorithms. This methodology reduces the number of unwanted bit patterns. It would sharpen the photographs by removing the ones that are slightly textured or have a coloured backdrop and replacing them with sharper ones. It is feasible that much possible noise will be eliminated by making just important information to be retained as a result of this approach. Non-linear filters and linear filters are the two types of filters available.

Pseudocode:
Binarization (Image)
1. For X=Min_X to Max_X//1
2. For Y=Min_Y to Max_Y //2
Pixel_Intensity_Sum=Pixel_Intensity_Sum+Pixel_Intensity(X,Y)
Pixel_Count=Pixel_Count+1
3. EndFor
4. EndFor
5. Average_Intensity= Pixel_Intensity_Sum/Pixel_Count
6. For X=Min_X toMax_X
7. For Y=Min_Y toMax_Y
7.1. If (Pixel_Intensity(X, Y)>=Average_Intensity) Set Pixel_Intensity(X, Y) =WHITE
7.2. Else Set Pixel_Intensity(X, Y) =BLACK
7.3. End If
8. EndFor
9. EndFor
10. Return Modified Image

#### Fig. 8. Binarization

In the field of picture de-noising, binarization is one of the techniques employed. In Fig. 8, the binarization phase after a filtering procedure can be performed has been completed. Modified noise reduction methods are used in conjunction with these binarization and filtering methodologies to achieve noise reduction.

The K-Algorithm is the name of the improved technology, and it would be actively involved in executing the removal of noise from the image. When it comes to photos, the binarization (Ntogas et al 2013) technique could be used from the background to separate the text. This procedure is entirely dependent on filtering as well as thresholding, then that are integrated along the image processing algorithms. The techniques for binarization consist of sets of five discrete phases which are dependent in different classes of pictures and are performed in parallel. It is used as a refinement process to increase the quality of images captured. The outcome of the filtering stage may still contain a little amount of coloured background, which can cause interference with the operation of the subsequent stages.

Binarization has been implemented in order to avoid and cope with the aforementioned difficulties. When filtered photographs are converted into digital images, which is spelled binary, the binarization phase is engaged in the implementation. Based on this, it is possible to calculate the value of the threshold, and then the procedures can be carried out based on the colours used.

The normalisation process is a linear procedure. Automatic normalisation, in most cases, normalises the image regardless of the file type. In the end, it results in the construction of an image with a consistent dimension. Its goal is to limit the number of deviations that arise throughout the data entry process. Take, for example, the size normalisation technique, which can be utilized to change the character size in a standardised manner. The characters recognition can be used for both horizontal and vertical size normalisation, depending on the orientation of the characters.

$$R_{1} = \frac{\min(W_{1}, H_{1})}{\max(W_{1}, H_{1})}, R_{2} = \frac{\min(W_{2}, H_{2})}{\max(W_{2}, H_{2})}$$

Thus, W1 indicates the character width

H1 indicates the height of character

W2 indicates the normalized character width

H2 indicates the height of normalized character original character is indicated by the R1 R2 indicates the character normalization

*Segmentation:* Phenomena of problem-solving is one in which people all over the world are participating. A domain that arises from the specific characteristics of a particular particle amid interactions with other particles. The populations have been grouped as a result of the topology structure of communication. This is accomplished through the use of social media. In the PSO research, coordinates have been tracked in the solution space using a tracking algorithm. This might be related with fitness, which would indicate the most appropriate solution. The value obtained as a result of this method is referred to as pbest, which is an abbreviation for personal best. Essentially, this is the alternative value at the optimum standard that is being watched via PSO, and it is considered to be the best value obtained due to a particle which is present in close proximity to the particle in question. Such kind of value is referred to as the gbest value. In PSO, every particle attempts changing the position or status by utilising the information provided here.

- Velocities of current,
- The locations of current,
- The path amongst the gbest as well as the current position
- The path amongst the pbest as well as current position,

This equation produces a mathematical model for changing the position of such particle that is based on mathematical principles,

$$V_{i}^{k+1} = wV_{i}^{k} + c_{1} * rand_{1}() * (pbest_{i} - s_{i}^{k}) + c_{2} * rand_{2}() * (gbest_{i} - s_{i}^{k})$$

Where,  $V_i^k = i$  with agent velocity, in iteration k,

w = weighting function,

cj= Weighting factor is j=1,2.

Rand = Numbers are distributed consistently and in a random way, ranging from 0 to 170

k = denotes the given place of agent in kth iteration of agent i's,

pbesti = i's pbest,

gbesti = group of gbest's

$$W = W_{max} - [(W_{max} - W_{min})iter]/maxiter$$

Where, wMin = indicates final weight, wMax = indicates initial weight, maxIter= indicates maximum number of iterations, iter= indicates the currently iteration number. Using the following described equation, it is possible to change the position available currently, that is currently present in solution space that is the searching point.

$$s_i^{k+1} = s_i^k + V_i^{k+1}$$

#### 4.3.1.1 Deep Neural Network Classifier

As a learning strategy, the deep neural network is described as having the potential to be utilised by humans to learn new information.. For want of a better term, it could be described as a strategy to automating predictive base analysis. These levels are sandwiched in between the current and output layers of the hierarchy. It is used to construct intricate non-linear interactions that are difficult to understand. It is proposed that this model be used to provide a compositional method in which items is articulated in a composition structure which is layered-based.

Furthermore, the characteristics from the lowest layer would be enabled by the further layers that are made available. Because a feed-forward network is DNN, data can travel to the output layer from the input layer in a single path, rather than looping back to the input layer. Because of the existence of noise, the deep neural classifier was already applied to image identification. The classifier has been created to remove noise from the images by removing noise in photos. Image denoising is a significant problem in the field of computer vision for a long time. Denoising, an ill-posed inherent problem that is appropriate for the data loss that occurs during the noise addition period. Image denoising is accomplished through the use of the following formula.

I=D(I) + h

#### Chapter 4

Proposed Algorithm Pseudo code : Training set = PSO Features, target, hidden neurons, Iterations max, weights, bias. Output: Network. 1. Start Network initializenet1 threshold ≤ T, [ro, co] = size (PSO_Features) 3. For i = 1:ro training set =cat(1,1:50); 4. Endfor 5. For j = 1:co target (j) = j; 6. End for training set = double(training set); 7. For  $(i > 1, i \le Tmax, i++)$ 8. Do 8.1. net1 = newff(training set,target,10); 8.2. net1.trainParam.epochs=100; 8.3. net = train(net1, training set, target); While 9.1. backpropagateerror(net1, net, Network); 10. End while 11. End

#### Fig. 9. Proposed algorithm

Specifically, the degrading function is D(I) that is connected with the real picture I, and h is the noise that is additive that is used in this case. The MSE (Mean Squared Error) that is pixel-wise, loss minimizer is the most widely used loss minimizer having an end goal of image denoising as well as delivering a comparable dimensional calculation as before (MSE). By reducing noise from the signal, one may examine the performance and perhaps improve accuracy (Cyganek and Koziarski 2016). Typically, this approach is used on noise that contains both known and unknown situations. It is made up of a variety of different neural network models. Each network layer is adjacent to the other and is fully connected to the other network levels on each network used by this. Meaning that in the network each and every neuron has a link with other neurons that are adjacently presented in layers, as seen in the diagram below. In picture denoising, which is accomplished through the use of a deep neural network, a number of mathematical models are utilised.

#### 4.3.2 Systematic Analysis

For the purpose of testing the impact of these procedures, of Urdu language, 40 samples from various handwritten papers were gathered. Python is utilized to create models for testing and training, and it is also used to write code. Character Recognition procedures such as feature extraction, pre-processing, recognition and

segmentation are employed in the construction of the system. This is considered as input for the character recognition algorithm.

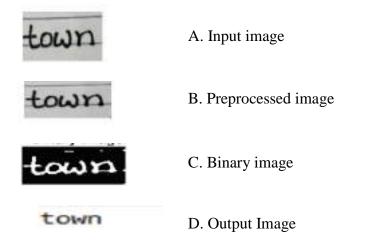
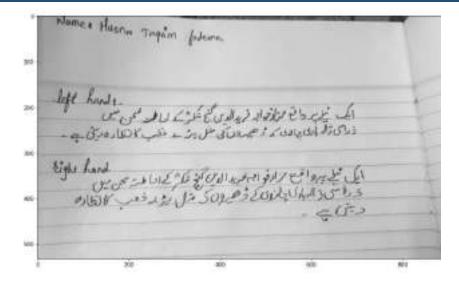


Fig 10. results of recognition of small letters in English Handwriting

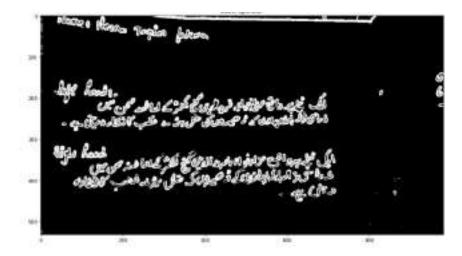
Figure 10 represents for the small letter, the recognition of handwriting in English results of the proposed steps, as shown in the example above. The results of small English letters of the input image in Figs. 10 (A and B), were compared to those obtained from Fig 10 (B), the results of small English letters of the preprocessed image were compared to those obtained from Fig 10 (C), and finally the recognition results output for small English were compared to those obtained from Fig 10 (D).

Nume + Huston Tagin John الک نور وال از اف رو الدی الم مرد الدی الم مکن میں درای دل الداروں مرد الدی الم مکر مرد الد مکن میں درای دل الداروں مرد الم موں کا مل برد بد خلب محتول و مرق مو ایک الم یرواق مراد و ای مرد الدی مج عار مراد مرد می این در ای در اله ادی در در در ای مرد مرد مرد مرد می این در جی س ~ (5-2

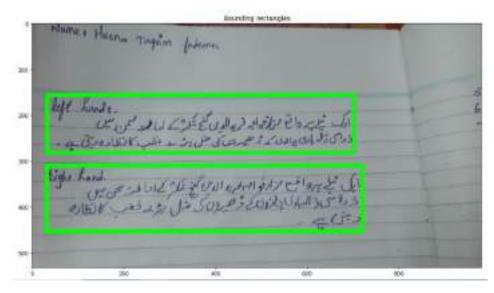
A. Input image



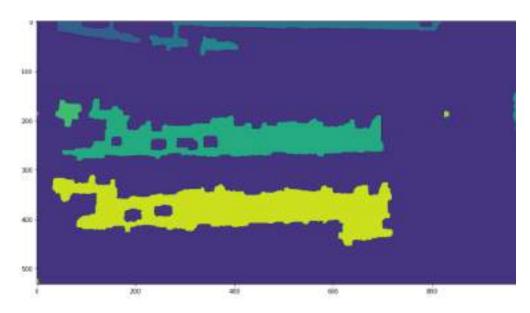
B. Preprocessed image



C. Binary Image



D. Output Results



E. Left and right hand-writing recognition

Fig.11. Results of recognition of small letters in Urdu Handwriting

Overall results of recognition of handwriting in Urdu the proposed procedures are depicted in Fig. 11. Figure 11 (A) depicts the input image results, whereas Figure 11 (B) depicts the results of the pre-processed image, whereas Figure 11 (C) depicts the results of the binary image, whereas Figure 11 (D) depicts the results of recognition output, and lastly Figure 11 (E) depicts the right hand categorization as well as in the Urdu language, left handwritten text.

Fig 10 as well as Table 1 illustrate the outcomes of the experiment. Due to the improvement in system performance, the image quality is improved, allowing for more accurate identification. In handwritten data recognition, classifier using deep neural network achieves an 90.52 percent efficiency, comparing the SVM classifier achieves an efficiency of 85.13 percent. Naive Bayes achieves an efficiency of 87 percent. With 48 samples as well as 10000 samples regarding the Urdu language, 100 iterations were employed in this work, with a total of 10000 samples.

Algorithm	Sensitivity (%)	Specificity (%)	Precision (%)	F-measure (%)	Accuracy (%)
DNN	88	76	88	88.04	91.5
NN	84	72	87	85	89
Naïve Bayes	83	70	86	85	84.5
SVM	81.12	69.5	85.62	83.56	85.32

#### Table 4.1. Performance comparison results of English character

Table 4.2. Performance comparison results of Urdu text

Algorithm	Sensitivity	Specificity	Precision	<b>F-measure</b>	Accuracy
	(%)	(%)	(%)	(%)	(%)
DNN	89	78	90	89	91
NN	87	76	88	87	89
Naïve	85	74	85	86	87
Bayes					
SVM	82	70	86	84	85

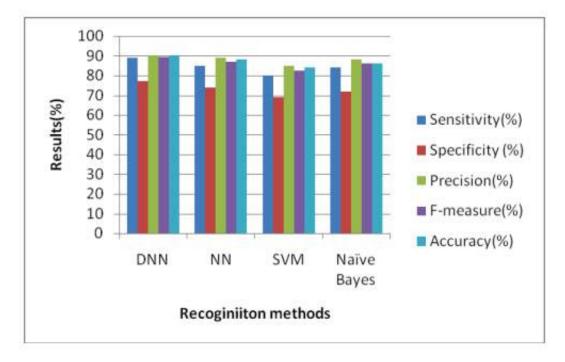


Fig.12. Proposed Algorithm Performance (English)

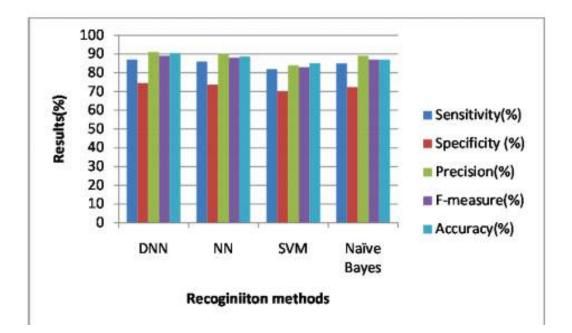
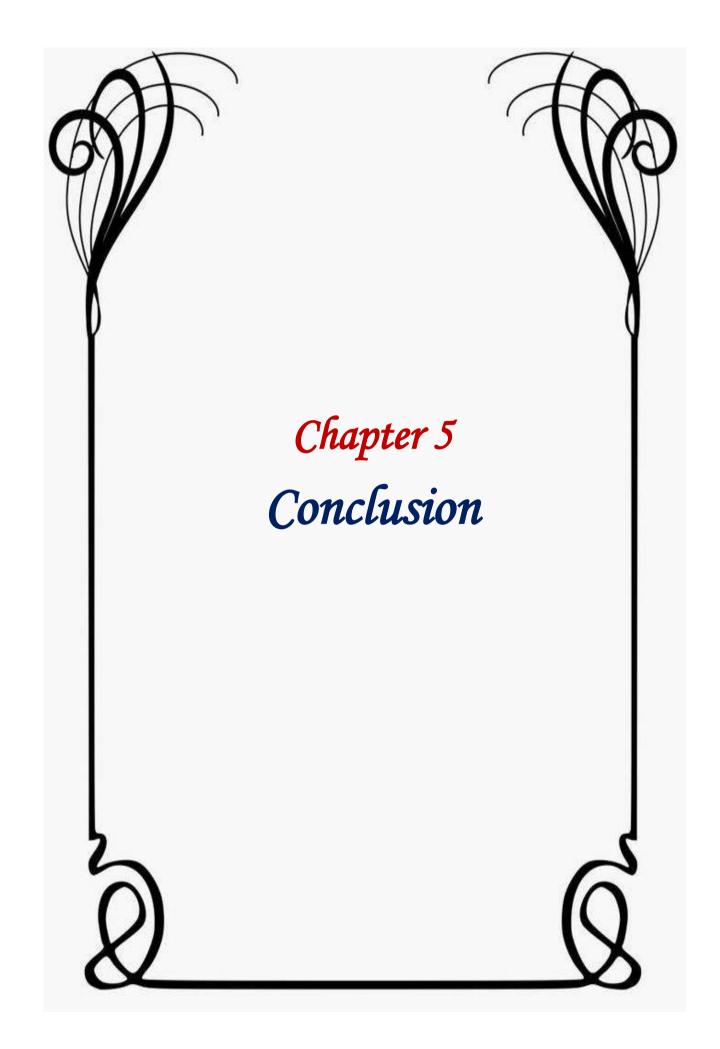


Fig.13. Proposed Algorithm Performance (Urdu)



## CHAPTER 5

## CONCLUSION

We suggested a technique involving CNN-based data set removal from an image and algebraic fusion of distinct words in images to categorize for trained in different sets of edges, prepared by feature selection applied to the original CNN feature set. The findings of the experiments suggest that a fusion of categorization images can produce a descriptive word. The collection has 400 images in total. The primary handwritten dataset yields five results. These handwritten comments are written on the left side of the page.

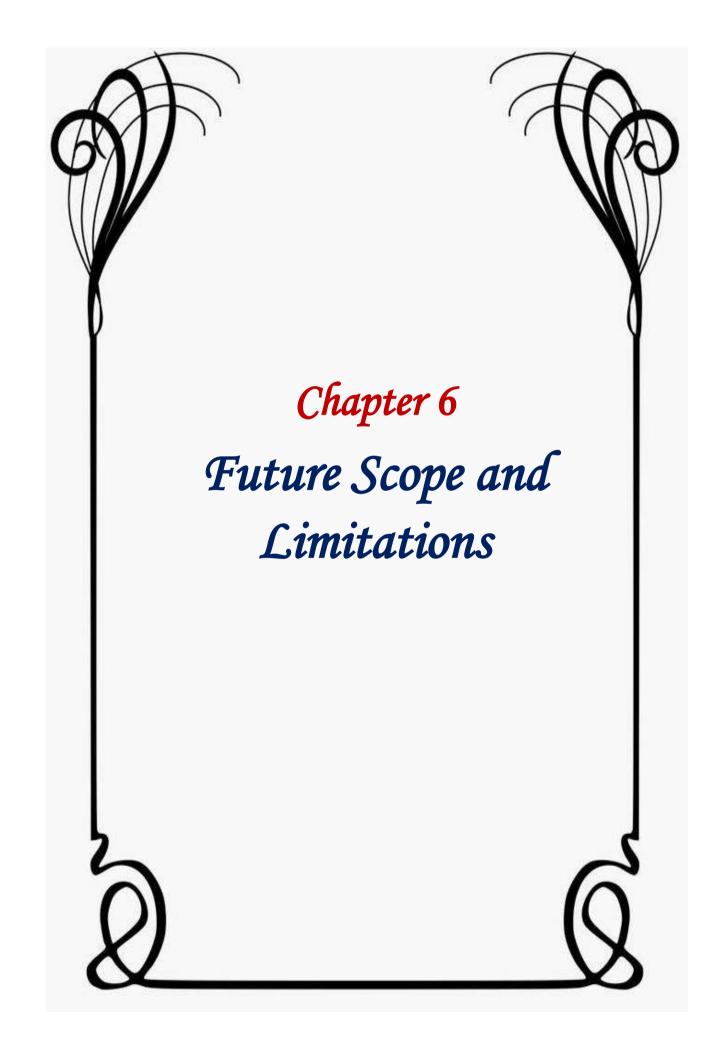
In the proposed work Firstly, the handwriting features of ambidextrous and nonambidextrous persons are classified and implemented. Secondly, predicted the images of handwriting features of ambidextrous and non-ambidextrous persons. Thirdly analysed the images data of handwriting features of ambidextrous and nonambidextrous persons with each line of paragraph.

The purpose of this study is to determine whether the left-hand side can correctly pronounce words when compared to the right-hand side. The dataset is split into the exercise set (70%) and the validation set (30%). We partition the full feature set of three datasets into separate categories in this examination. Its purpose is to evaluate the number of variables that apply to testing and the testing method. All study classifiers were evaluated, and four algorithms were implemented for training and testing or model assessment. The photos with edges have been pre-processed. There are plans to apply handwriting paragraphs to categorize image data. Images Predictive handwriting paragraph data might be structured or unstructured.

During the testing and training phases, structured data is typically preprocessed. As a result, we might conclude that many words are unclear. We can't make out what they're saying. We can write with our left hand, but it does not predict clear recognition when compared to our right hand. According to the findings of this study, handwriting paragraphs can be classified and implemented with each line. In this work, we used the Anaconda software to implement the code in Python and the deep learning programming language. Anaconda is a temporary free distribution of the

deep language and the Python programming language for computing code, to optimize package administration and deployment. Anaconda was formed and supported in 2012 by Travis Oliphant and Peter Wang. Python and the Python programming language were utilized. It performs admirably on picture datasets. It can operate with both small and large datasets.

To classify each line of handwriting paragraph, we used the convolution neural network approach. Based on the results, it is concluded that all CNN algorithms are more efficient and effective in handwriting paragraph categorization. The CNN method necessitates fine-tuning of the edges as well as a large number of circumstances for data collection. It just builds the algorithm model with precision and accuracy in categorization. As a result, CNN algorithms for picture data are used to classify each word and line. However, the results show that the CNN algorithm works well with picture datasets to predict words that are easy to grasp.



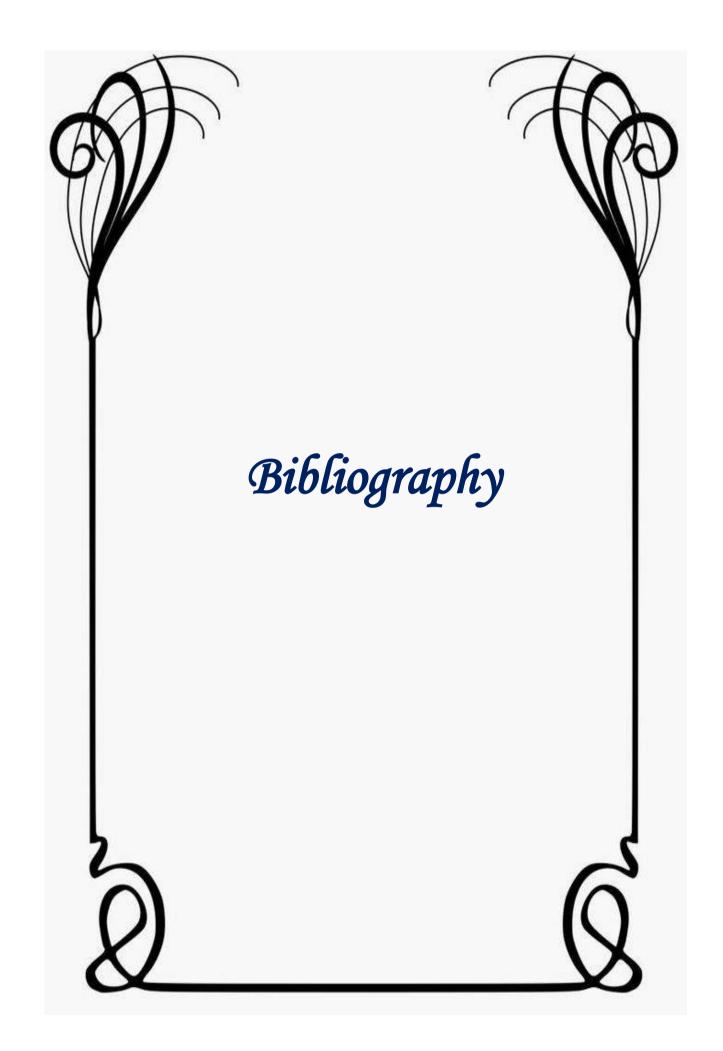
## **CHAPTER 6**

## FUTURE SCOPE AND LIMITATIONS

Feature extraction/selection procedures, Pre-processing and the methodology for selecting CNN training parameters can all be enhanced in the future to produce more promising results. Recognisability rates can be increased by investigating more robust features that more accurately describe the input sample images. Additionally, the development of algorithms for the automatic selection of threshold values based on the properties of the dataset may be a future priority. The available literature shown that incorporating several classifiers at various phases of this system aided in enhancing the accuracy of classification systems. As a result, the ensemble classifier system constructed by fusing different other classifiers may be examined in the near future.

The one of the limitation of the proposed work is sample collections of ambidextrous people because People that are truly ambidextrous make up less than one percent of the population. About 1 in 100 persons have no dominant hand and can use both hands equally well, while many left-handed people can use their non-dominant hand nearly as well as their dominant hand.

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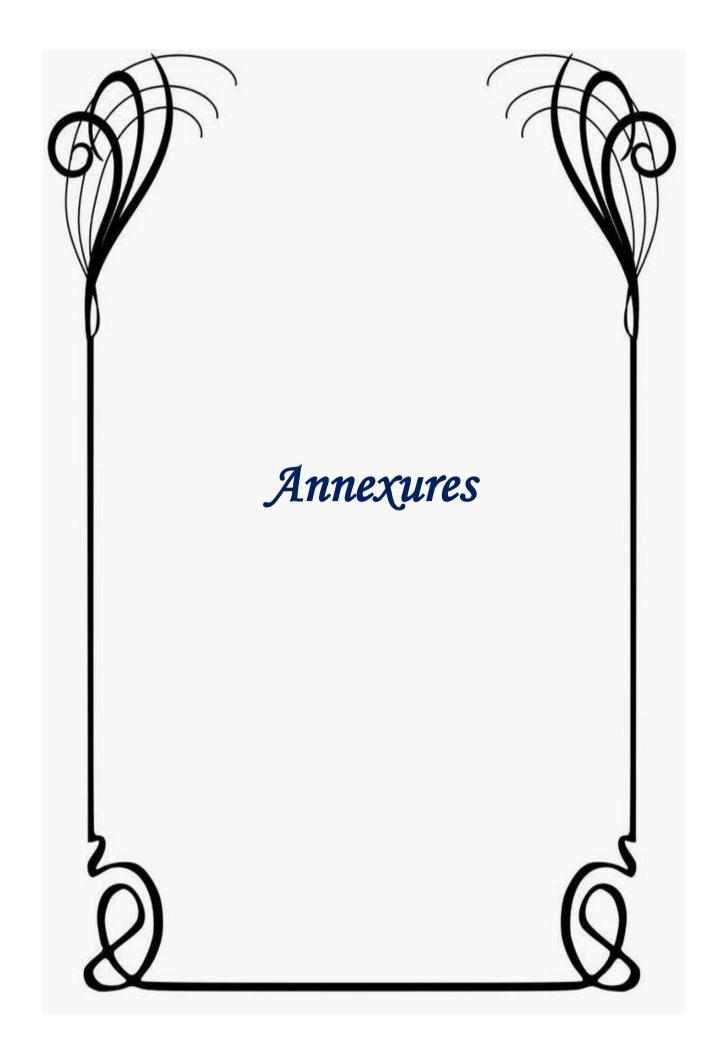
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Handwriting Sample collectionfor-Completion of Research Thesisin Ph.D. (Forensic Science) by Mr. Siddiqui Mohd. Khaja Moinuddin (Research Scholar) 2018

Name*	DOB .	
Sex*	Date of Admission	
School/ College Name*	Nature of Hand*	
Writing Skill (Languages)	Best Writing Skill	
Class	Level (Beginner/Lerner/ Expert)	

## 1. Write 1 to 20 (1 to 10 with Right Hand 11 to 20 With Left Hand)

Right Hand Left Hand		
Hand		
Left		
Hand		

## 2. Write with both hands 'The quick brown fox jumps over a lazy dog'

Right Hand Left Hand			
Hand			
Left			
Hand			

## 3. Write with both hands 'The quick onyx goblin jumps over the lazy dwarf'

Right Hand			
Left Hand			
Hand			

## 4. Write with both hands 'A to Z' in small letters.

Right	
Hand	
Left	
Right Hand Left Hand	

## 5. Signature with Left Hand

## 6. Signature with Right Hand

		54	

#### To,

Professor Dr.ShatrunjayKote, Principal, M. S. M. College of Physical Education Aurangabad Maharashtra-431001

Subject: Request to obtained Handwritten samples of your college students for completion of Research work.

#### Respected Sir,

I Siddiqui Mohd. Khaja Moinuddin, Pursuing Ph.D. in Forensic Science from Galgotias University Greater Noida U.P. Registration Number. 175BAS301005 and I am resident of Aurangabad Maharashtra. My area of research is "Study of Handwriting Features of Ambidextrous and Non-Ambidextrous Persons by using Image Data Base" for completion of research work I need to collect handwritten samples (on given proforma) of right- and left-hand writers these finding will be very helpful to forensic experts of India.

I will be very thankful to you if you allow me to acquire samples for this purpose. I am also thankful to your esteemed organisation, management and students for support.

(Siddiqui Mond. Khaja Moinuddin) Research Scholar Ph.D. (Forensic Science) SBAS, Galgotias University Enrolment Number 17SBAS301005

Enclosed: 1) Given Sample format. Permident Jac Research Vanner Permident Jac Research

Τo,

Professor Dr. C. M. Rao, Sir, Principal, M.P. Law College Aurangabad, Maharashtra-431001

Subject: Request to obtained Handwritten samples of your college students for completion of Research work.

#### Respected Sir,

I Siddiqui Mohd. Khaja Moinuddin, Pursuing Ph.D. in Forensic Science from Galgotias University Greater Noida U.P. Registration Number. 17SBAS301005 and I am resident of Aurangabad Maharashtra. My area of research is "Study of Handwriting Features of Ambidextrous and Non-Ambidextrous Persons by using Image Data Base" for completion of research work I need to collect handwrittensamples (on given proforma) of right- and left-hand writers these finding will be very helpful to forensic experts of India.

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(Siddiqui Mohd. Khaja Moinuddin) Research Scholar Ph.D. (Forensic Science) SBAS, Galgotias University Enrolment Number 17SBAS301005

Enclosed: 1) Given Sample format.

## LIST OF RESEARCH PUBLICATION (S) EMANATING FROM THE THESIS WORK:

{1} Siddiqui Mohammad Khaja Moinuddin, Dr. Suneet Kumar, Prof. Dr. Arvind Kumar Jain and Dr. Sayeed Ahmed

"Analysis and Simulation of Handwritten Recognition System"

Materials Today: Proceedings: ISNN 2214-7853 Page No 6082-6088 (SCOPUS)

https://doi.org/10.1016/j.matpr.2021.05.021

{2} Siddiqui Mohammad Khaja Moinuddin, Dr. Suneet Kumar, Prof. Dr. Arvind Kumar Jain

## "Left & Right Handness (Ambidextrous)"

Journal of the Maharaja Sayajirao University: ISSN: 0025-0422 Volume-55, No.1 (IV) 2021 Page No. 166-172 (UGC Care List I)

{3} Siddiqui Mohammed Khaja Moinuddin, Dr. Suneet Kumar, Prof. Dr. Arvind Kumar Jain and Dr. Sayeed Ahmed

## "Study on Handwriting Features of Ambidextrous Persons by Using Image Processing"

International Journal of Health Sciences: ISSN: 0025-0422 volume 6 (S3), Page No 7003-7021 (SCOPUS)

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# Analysis and simulation of handwritten recognition system

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#### ABSTRACT

Handwriting recognition is the automatic transcription of handwriting, where only the image of the handwriting is available. Manual matching shall be used by banks for the authentication of checks and signatures. In forensics, handwriting corresponding algorithms can help handwriting analysts to predict the author with greater precision. This handwriting needs to be scanned to the computer for the handwriting recognition system to access it and analyse it consequently. A variety of handwriting applications, including transcription papers, mail routing, and processor forms, checks, and faxes, may be envisaged. Several applications are also possible. The extensive research effoncentrated on the field of character recognition (CR), due both to its possible applications and to the difficulties involved in simulating human reading. The new Offline Handwritten Recognition (OHR) is designed for both Urdu and English. It mainly focuses on the removal of noises in word, character segmentation methods with higher recognition rate. The images which are scanned may contain noises and image de-noising steps consist of binarization, noise elimination, and size normalization. Words and character segmentation are used for the next step which is feature extraction. Finally, word recognition is performed by using the deep neural network classifier.

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#### 1. Introduction

For the new generation, it will be important to popularize the language and benefit from the available documentation (old or current) [1]. The OCR interprets the scanned document image into a machine-understood script. The ability of a machine to obtain and read intelligible handwritten input from sources including paper papers, images, touch screens, and other devices is handwritten recognition (HR). The picture of the written text could be sensed "offline" by an optical scan or smart word recognition on a piece of paper. Alternatively, the motions on the tips of the pen can be detected "online" e.g. via a pen-based computer screen surface. Human functionality simulation in the field of vision and manuscript text in particular is still missing. The need to know the handwritten text is a challenge not only about behavioral biometry but also about trends. Writing is the most normal mode in which information is gathered, saved, and transmitted. It is not

only a communication tool among people but also a communication tool between human beings and machines. The few applications listed for offline handwritten recognition require to check recognition, file format recognition of manual applications, prescription of a doctor, checking signature, postal address interpretation, etc.

The intense research effort was focused on the field of recognition of character (CR) due to the problems associated with human reading simulation and its future applications. CR is a special pattern recognition branch, which includes the translation into the machine-readable text of the text written or printed [2]. While many promising research findings have been published in the field of the handwritten recognition of linguistics such as English, Chinese, Japanese, and Arabic, the Indian language scenario is not so strong. The two most popular writings in India are Devanagari and Bangla, most of the works in the Indian field of character recognition. India has 22 programming languages, multi-lingual, multi-script countries. Much of the Indian scripts come from the Brahmi script of old times. The Kadamba and the Grantha scripts of ancient Brahmi are derived from the South Indian languages.

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An analysis of the various aspects of the manuscript recognition method is carried out in this research for Urdu, and English.

The major aim of the work is to design a new offline handwritten recognition (OHR) system for multilingual, which maximizes the recognition rate with the least amount of elements. The major objectives of the design are designed as follows. To design new preprocessing methods such as noise elimination, binarization, size elimination, and thresholding for removing noises from the images because this increases the quality of the characters. To design a new optimization-based segmentation method that correctly segments the line, character, and word from the images. To design a new Character Recognition Method which correctly recognizes Urdu, and English increases the recognition rate of the characters.

#### 2. Related work

Handwritten recognition can be broadly classified into two categories namely, online recognition and offline recognition. Offline handwriting can be of many formats and likely it could be obtained from paper or images. These types of contents could be extracted using Optical Character Recognition (OCR). This mechanism is very useful in many areas, one among those in the medical field. In ancient days, analysing a doctor's handwriting is a bit difficult task. This methodology helps to analyse and retrieve the information from the doctor's handwriting. In this section, the researcher has discussed the review of the pre-processing methods, segmentation methods, feature extraction methods, and classification methods for the handwritten recognition of image processing.

The influence of the evolutionary depth of the network on its accuracy in the broad recognition environment was investigated by Simonyan and Zisserman [3]. The key contribution is to thoroughly analyse networks of growing depth using an architecture with a very small  $3 \times 3$  convolution filter that shows that the depth of 16–19 weighing layers can be considerably improved in terms of prior art configurations. These results formed the basis for our submission to the ImageNet Challenge 2014 where our team won first and second place places in the position and grading routes respectively. Show also, that representations are common in other datasets.

Kumar et al. [5] employed the OCR for offline handwriting recognition. To implement the OCR the neural network has been utilized. This model has been developed for the medical domain in which the doctor's handwriting can be recognized. This model only predicts the prescribed medicines and does not provide an outcome for general purposes.

The off-line segmentation and reconnaissance method for uncontrolled handwritten linked digits has been proposed by Merabti et al. [6]. By finding two forms of structural functionality, the framework proposed offers new segmentation routes. The input string image includes the background and foreground character points. From these feature points, the possible cutting paths are created. Based on their feature points and their height, each candidate variable is evaluated individually. The performance is evaluated with the Fuzzy artificial immune system the segmentation module (Fuzzy-AIS). The latter carries out a decision-making function in the resulting parts, followed by a global choice of the hypothesis with the best outcome.

Al-Maadeed et al. [8] aimed to develop a new system that selects the vital feature thereby eliminating the non-effective features. This model could be developed using Lukasiewicz's implication on fuzzy conceptual reduction. Both English and Arabic languages are taken into consideration for handwritten recognition of characters. The database of 121 writers is considered on which the k-Nearest Neighbors (k-NN) is used to evaluate the accuracy efficiency. The left or right-handedness parameter is considered for evaluation and it produces a high accuracy of 83.43%.

Govindarajan [10] developed a hybrid which is of a new classification model for handwritten numerals detection by combining SVM and Radial Basis Function (RBF) classifiers. The original training sets are resampled to form modified training sets. Here classifiers are combined by voting after construction by using training sets. The proposed hybrid model system provides high accuracy of handwritten recognition of numerals and is illustrated by the empirical outcome obtained from the model.

Balci et al. [9] proposed a model for converting the handwritten text into digital documents. This model is designed such that it includes two approaches namely, direct classification of words and segmentation of characters. The Convolution Neural Network (CNN) is the methodology employed for the former approach. The latter approach involves Long Short Term Networks (LSTM) methodology with convolution for the construction of bounding boxes of every character. Then the segmented characters are passed to CNN for classification and thus the words are reconstructed based on results.

#### 3. Methodology

The proposed work majorly focuses on the removal of noises and image segmentation methods with recognition methods. The proposed flow diagram is shown in Fig. 1.

The handwritten recognition could be achieved effectively by implementing the following process: (Fig. 2).

#### 3.1. Pre-processing

This process involves the conversion of raw data into a userreadable form by undergoing various steps. *Binarization:* The image digitization is one of the steps involved in pre-processing where the image is converted to a gray scale image and then transformed into a binary image. Noise elimination: The scanned images generally contain noises. Filled loops, gaps, bumps, and disconnected line segments are the general noises occurring in images. So noise elimination is performed for effective recognition.

*Normalization:* Removal of variations from images without affecting word identity is the process of normalization. The initial process of normalization involves image cleaning and it involves the trailing process namely, skew correction. Next to that line detection and character size normalization occurs.

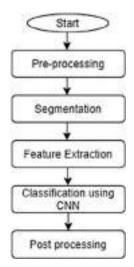


Fig. 1. Proposed flow diagram for handwritten recognition.

#### Step1: Read an image file of .jpg

Step2: Convert RGB images to grayscale by eliminating the hue and saturation information while retaining the huminance

Step3: Find a global threshold (Th) that can be used to convert a grayscale image to an image of two intensity

Step4: If image_intensity > Th Current_intnsity=1 else Current_intnsity=0 end

Step5: Perform a morphing operation such that the image changes no longer. For each pixel If 5 or more pixels of its 3×3 neighbourhood are 1s Pixel_value=1; Else Pixel_value=0;

Step6: Perform horizontal projection of the image to extract lines for each line performs vertical projection to extract words

Step7: For each word connected component analysis has done to find each symbol

Fig. 2. Image processing algorithm.

#### 3.2. Segmentation

The next step to pre-processing is segmentation where the characters in the image are segmented for providing separation between characters. This also helps to simplify the recognition process. Script segmentation and image segmentation are the kinds involved. The script segmentation is implemented using performing word, line, and character segmentation. Particle Swarm Optimisation (PSO) is one of the segmentation methods that enhances the solution by iterative optimization of the problem.

#### 3.3. Feature extraction

In the presence of the least amount of elements, the recognition rate could be increased by extracting the feature set in this process. There are various kinds of feature extractions. Some of them were Chain Code (CC), Principal Component Analysis (PCA), and so on. The output extracted from Feature extraction is being provided as input for classification.

#### 3.4. Classification

Classification is the vital phase and it acts as a part of the decision making of handwritten recognition. The feature quality decides the classifier's performance. The output of the classifier is provided as input to the deep neural network classifier. Artificial Neural Network where multiple hidden layers among the input layer and output layer occur is Deep Neural Network (DNN).

#### 3.5. Post-Processing

Structural text format is obtained as output from the postprocessing as it is the final phase of recognition. Problems in segmentation and classification of character errors occur usually. So to eliminate these errors, this phase is executed. Statistical approach and dictionary lookup are the methods employed for error elimination. Thus the effective recognition of texts is obtained on performing that process.

Noise removal by Modified Median Filter (Fig. 3) Pre-processing deals with the reduction or removal of noise in images. There are different types of noise are available namely, noise, Salt, Shot, Quantization noise (uniform noise), Film grain, Anisotropic noise, and Periodic noise. To obtain efficient results, a modified mechanism is used in research areas namely K-Algorithm. This approach includes two different stages namely, binarization and filtering. A re-sampling algorithm has been used to perform filtering processing noise elimination steps. Filtering always refers to the various functions that are predefined in the image to assign value to the pixel which is considered as a function of values. Unwanted bit

Pseudocode: Modified Median Filter (Image, Matrix Size)
1. SetA_Min=-(Matrix_Size)/2
2. Set A_Max=(Matrix_Size)/2
3. For X=Min_XtoMax_X
4. For Y=Min_YtoMax_Y
5. For X1=A_MintoA_Max
5.1. SetTemp_X=X+X1
5.1.1. If $(Temp_X > -Min_X and Temp_X < -Max_X)$
5.1.2. For YI=A_Min to A_MaxSetTemp_Y=Y+YI
5.1.3. If (Temp_Y>=Min_Y and Temp_Y<=Max_Y) Add Pixel_Intensity (Temp_X, Temp_Y) to
listPixel_Values
5.1.4. End If
5.1.5. EndFor
5.1.6. End lf
6. EndFor
7. Sort the listPixel_Values
<ol> <li>Set No_Occurrences=Number of the occurrences of lowest pixel intensity value in listPixel_Values</li> </ol>
9. If (No_OccurencesK)
9.1. Median_value=Value at Picel_Values_Count/2
9.2. Set Pixel_Intensity(X, Y) =Median_Value
10. End If
11. EndFor
12. EndFor
13 Retorn Medified Imaoe

Fig. 3. Modified median filter.

Pseudocode: Binarization (Image) I. For X-Min X to Max X//I 2. For Y=Min Y to Max Y//2 Pixel Intensity Sum=Pixel Intensity Sum+Pixel Intensity(X.Y) Pixel Count-Pixel Count+1 3. EndFor 4. EndFor 5. Average Intensity- Pixel Intensity Sum/Pixel Count 6. For X=Min XtoMax X 7. For Y=Min YtoMax Y 7.1. If (Pixel Intensity(X, Yi>=Average Intensity) Set Pixel Intensity(X, Y) =WHITE 7.2. Else Set Picel Intensity(X, Y) =BLACK 7.3. End If 8. EndFor 9. EndFor 10. Return Modified Image

Fig. 4. Binarization.

patterns are diminished using this methodology. It would remove the images that are textured slightly or background with color and sharper them. Due to this process, much possible noise is reduced by making retaining only relevant information. The filter is of two categories: non-linear and linear filters. Since linear type has some disadvantages, the non-linear type has been used to overcome those disadvantages such as blurring edges, blurring details, and destruction in lines.

Binarization is one of the approaches used for image de-noising. The binarization (Fig. 4) step could be carried out after a filtering process. These filtering and binarization methodologies are adapted by modified mechanisms for noise reduction. The name of the modified technology is K-Algorithm which would actively involve in performing the removal of noise present in the image. This binarization [7] approach could be applicable for images to separate the text from the background. This process is purely based on thresholding and filtering which is combined with algorithms of image processing. The procedures of binarization involve 5 sets of discrete stages that depend on various classes of images. It acts as a refinement methodology to improve image quality. The result obtained in the filtering stage might still possess colored backgrounds slightly that lead to interference in the functioning of the next stages. To avoid and deal with these said issues, binariza-

tion has been introduced. The binarization step is involved in the conversion of filtering images into a digital image which means binary. From this, the value of the threshold could be calculated, and finally based on colors, the processes are carried out. That is if the intensity value of the pixel is above a threshold value, it is set as white (0) and if it is below the thresholding value, it is set to be black (1). Thus by using an average of overall pixel intensities in the document, the threshold value could be obtained (Fig. 5).

The process of normalization is linear. For instance, if the image has intensity ranges between 50 and 180 then the range desired is between 0 and 255. Every pixel-based intensity is multiplied by using 255/180 and obtains a range of 0 to 255. Automatic normalization typically normalizes the image in any file format. It leads to the production of the image in a constant dimension. It aims to reduce the variations which occur during the writing of data. For Instance, the size normalization [4] has been used to adjust the size of the character in a form of standard. This recognition of characters is applicable for both vertical and horizontal based size normalization.

$$R_1 = \frac{\min(W_1, H_1)}{\max(W_1, H_1)}, R_2 = \frac{\min(W_2, H_2)}{\max(W_2, H_2)}$$

Thus, W1 represents the width of the character

Proposed Algoriduu Pseudo code :
Training set = PSO_Features, target, hidden neurons, Iterations_max, weight, blas.
Output: Network
1. Start
2. Network initializate 1 threshold $\leq T$ , $[ro, co] \equiv size$ (PSO_Features)
<ol> <li>For i = 1:ro training_set =cat(1,1:50);</li> </ol>
4. Endfor
5. For j = 1: co target (j) = j;
<ol><li>Endfor training set = double(training set);</li></ol>
7. $For(i > 1, i \leq Tmeex, i++)$
S. Do
8.1. net1 = newff(training_set,target,10);
8.2 net1-trainParam epochs=100;
8.3. net = train(net1, training_set, target);
9. While 9.1. backpropagateerror(net1, net, Network);
10. End while
11. End

#### Fig. 5. Proposed algorithm.

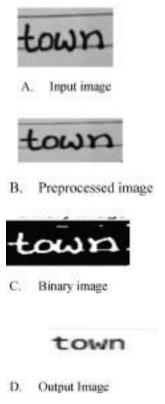


Fig. 6. English handwriting recognition results of small letters.

H1 denotes the character height W2 represents the width of normalized character H2 denotes the normalized character height R1 usually denotes the original character R2 represents the normalized character

#### 3.6. Segmentation

The phenomenon widely involved around the world is problemsolving. A domain where emerges from specific behaviors of the particular particle during interactions. Because of the topology structure of communication, the populations have been organized. This is carried out in the social network. In the research of PSO, coordinates have been tracking in solution space. This could be associated along with fitness which means the best solution. The value obtained from this process is said to be as pbest which stands for personal best. Alternate value at best level which is tracked by PSO and this is considered as the best value which is obtained from particle present in the neighborhood of particle. This type of value is said to be as gbest. By using the information, below each particle in PSO tries to change its state or position,

- The current velocities,
- The current positions,
- The distance between the current position and the gbest
- The distance between the current position and pbest,

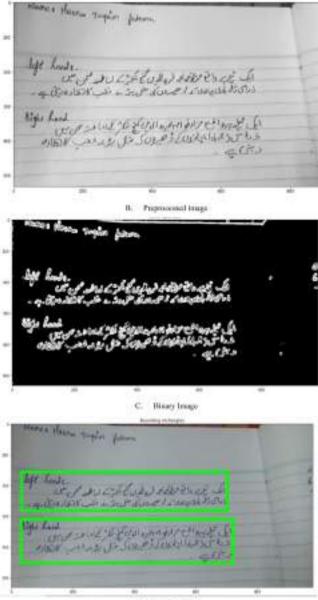
This equation brings out a model based on mathematical for changes in the position of the particle,

$$V_i^{k+1} = wV_i^k + c_1 * rand_1() * (pbest_i - s_i^k) + c_2 * rand_2() * (gbest_i - s_i^k)$$

Where,  $V_i^k$  = In iteration k, i with agent velocity,

theme Tugin filere يتوردانة المفتهاد فريدانون كالموت لاالحد عمل ين THE FLOW MAN HAVE BEERS Constant of Standard Constants

A. Input Image



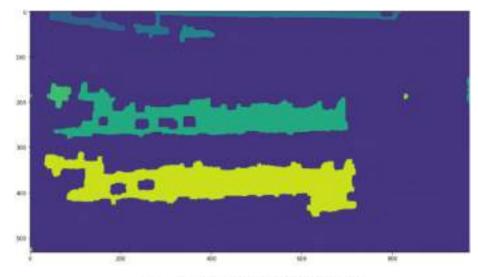
13. Output Results

Fig. 7. Urdu handwriting recognition results of small letters.

w = Function for weighting,

cj = Factor for weighting is j = 1,2.

Rand = Distributed uniformly having number from 0 to 1 70 in a random manner,



E. Left and right hand-writing recognition

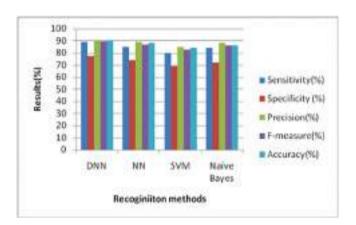


Fig. 8. Proposed algorithm performance (English).

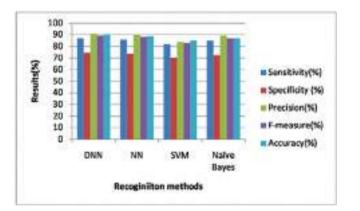


Fig. 9. Proposed algorithm performance (Urdu).

k = denotes the agent i's current position of agent in kth iteration,

pbesti = i's pbest, gbesti = gbest's group  $W = W_{max} - [(W_{max} - W_{min})iter]/maxiter$ 

Fig. 7 (continued)

Where, wMax = represents weight at initial, wMin = denotes weight during final, maxIter = represents iterations number by maximum, iter = denotes the number of iteration currently, Following specified equation could modify the currently availabs_i^{k+1} =  $s_i^k + V_i^{k+1}$  le position which means searching point present in solution space.

$$S_i^{k+1} = S_i^k + V_i^{k+1}$$

#### 3.7. Deep neural network classifier

The deep neural network is called to be a learning approach, where it could be used for humans to obtain knowledge. In other words, it would be considered as an approach for automation of predictive base analysis. Deep Neural Network shortly DNN is an Artificial Neural Network with various hidden layers. These layers are placed between the output and input layers. It is used to develop complex non-linear relationships. This model involves the generation of a compositional approach where objects can be expressed in a layered based composition. Also, the layers that are available extra would enable the features from the lower laver. Since DNN is a feed-forward network, the data can flow from input to output layer in one direction which means not loop towards the back. This deep neural classifier has been used in Image recognition due to the presence of noise. The classifier has been designed for dealing with noise in images to remove it. Image denoising has always been a major issue in computer vision. At its core, denoising is an essentially ill-posed issue appropriate to the loss of data for the period of noise addition. The following formula is used for image denoising.

#### I = D(I) + h

Here, D(I) is the degrading function related to the original image I while h serves as additive noise. With the end aim of denoising, an image and returning a similar dimensional calculation, the mainly extensively used loss minimizer is pixel-wise Mean Squared Error (MSE). By removing noises, one can analyze the performance and could obtain accuracy (Koziarski and Cyganek 2016). This process typically works on noise with known and unknown conditions. It consists of various types of neural networks. One of the most common types widely used is the Deep Convolutional Network. Each has network used by this has each network layers adjacently

#### IVIC

#### Table 1

Performance comparison results of English character.

Algorithm	Sensitivity (%)	Specificity (%)	Precision (%)	F-measure (%)	Accuracy (%)
DNN	88	76	88	88.04	91.5
NN	84	72	87	85	89
Naïve Bayes	83	70	86	85	84.5
SVM	81.12	69.5	85.62	83.56	85.32

#### Table 2

Performance comparison results of Urdu text.

Algorithm	Sensitivity (%)	Specificity (%)	Precision (%)	F-measure (%)	Accuracy (%)
DNN	89	78	90	89	91
NN	87	76	88	87	89
Naïve Bayes	85	74	85	86	87
SVM	82	70	86	84	85

which is fully connected. This means that every neuron in the network has a connection with other neurons which is adjacently presented in layers. Various mathematical models are involved in image denoising using a deep neural network. One among them is discussed here,

#### 4. Results and discussion

40 samples of Urdu language from different handwritten documents are obtained to test the effects of these methods. Python is used to develop models for training and testing. Character Recognition steps like Pre-processing, feature extraction, segmentation, and recognition is used for implementation. For these steps, the character image is considered as input for recognition.

Fig. 6 shows the results of the English handwriting recognition for the small letter of proposed steps. Fig. 6(A) shows the results of the input image of small English letters, Fig. 6(B) shows the results of the preprocessed image of small English letters, Fig. 6(C) shows the results of the binary image of small English, and finally Fig. 6 (D) shows the output of recognition results of small English.

Fig. 7 shows the results of the Urdu handwriting recognition of proposed steps. Fig. 7 (A) shows the results of the input image, Fig. 7(B) shows the results of the pre-processed image, Fig. 7(C) shows the results of the binary image, Fig. 7(D) shows the output of recognition results and finally Fig. 7(E) shows the categorization of the left hand and right handwritten text in Urdu language (Fig. 8. Fig. 9).

The results are shown in Table 1 and Fig. 6. The quality of the image is increased for clear recognition as it improves the performance of the system. The deep neural network classifier provides efficiency of 90.52% whereas SVM gives only 85.13%, Naive Bayes yields 87% efficiency in handwritten recognition of data. There are 100 iterations used in this work with 10,000 samples and 48 samples for the Urdu language (Table 2).

#### 5. Conclusion

Online recognition and off-line recognition are the two most common ways of recognizing a word or character. This model is designed in such a way that it is based on an off-line recognition system that involves various phases of recognition in it. The initial contribution of the work deals with the off-line recognition in which the pre-processing of the image is performed in which binarization; noise elimination and normalization are also performed. The segmentation is performed by using Particle Swarm Optimization (PSO) algorithm. The feature extraction phase helps to obtain the set of features and then the classification phase is where the Deep Neural Network (DNN) classifier is used for handwritten extraction. It is an iterative model. The final phase is where postprocessing is done for efficient identification in which the errors that occurred in classification and recognition of words are eliminated.

#### **Declaration of Competing Interest**

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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#### **Further Reading**

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## LEFT &RIGHT HANDNESS (AMBIDEXTROUS)

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# LITERATURE REVIEW

## ABSTARCT

Manual laterality (handedness) "in humans has some importance for forensic procedure where it is mainly seen in the context of a hand-held orientation based on simplistic three-stage designation (right-handed, left-handed and ambidextrous). In cases of murder or suicide, the pattern of injury, in particular stabbing or knife wounds and bullet wounds, can offer indications as to the hand of the attacker. In the case of injuries caused by another human, the pattern of results can, in isolated cases, cause inference to be made as to the hand of the attacker. In the biotechnology of humans, the efficiency or person choice, regarded as the dominant hand is the stronger, the quicker or the more reliable. The unfit, unfit or less favourite side is considered the undominant side. The most popular shape is right-handedness, with about 90% of the citizens worldwide rectangular. Handiness is also described by which hand one publishes, since people tend to perform some things with either hand fairly regularly. There are instances of actual mixed hands, but it is uncommon for most people to use a side."

## INTRODUCTION

Ambidexterity is the potential to fairly well utilise both the right and the left. "The term implies the material is similarly appropriate to citizens on the right and left when it comes to stuff. It indicates that, when talking to others, a person does not have any clear preference for right- or left-hand use.

It is necessary to remember that only about 1% of residents are ambidextrous. Certain people considered ambidextrous in modern days, who were originally leftist and taught to be ambidextrous, can or may not be seen intentionally or in schools or professions where the correct action is often emphasised or acceptable. Although certain daily instruments (for example, canopies and scissors) are asymmetrical and crafted for the right side," because of the unusual or absence of left-handed versions many of the left-handed people learn to use them. Therefore, leftists are more prone to acquire motor abilities than rightists on their non-dominant side

## Ambidextrous Thinking

At least two intended images are generated by the combination of "Ambidextrous" and "Thinking. "Ambidextrous" means the capacity to use both hands, because the first photo suggests the use of hands in artistic imagination, by implication, the use of the whole body. There are so many examples from Archimedes to Einstein of the value of kinaesthetics, "that it is a shame that you do not accept this reality and that you promote its usage in engineering. In a second picture, the idea of ambidexterity applies to the cortex, which is just as simple for the left and right sides of our cortex. The terms Right Mode and Left Mode are used to guarantee that the hypotheses of brain activity develop fast. A quick glance at this list reveals that in the society and, in particular, in engineering programmes, the schools and universities consistently prioritise the left or linguistic, mathematical, and reasoning symbols controlling abilities at the cost of right-mode abilities. Three phases of human growth is identified by Piaget: a stage centre, a visible stage, and a conceptual stage starting from eleven or twelve. If problem solving at the symbolic stage is hindered, people ought to reconnect to their brain ability in the correct way. The symbolic stage includes the implementation of conventions, cultural agreements, which imply terms and symbols. Breakthroughs also recommend that certain conventions be challenged. The initial sensory details must be tested for this. In other terms, with their full brain and eyes, hands and whole bodies, people will and do thought. Problems are internalised and the whole body can not only function by conscious awareness. Original thought in a very real sense needs a return to its roots.

"Right-, left- and mixed-handedness aren't sufficient to define the preferences of most people" Most individuals have a degree of cross-dominance — one hand preferring some functions, while it is the non-dominant, and much greater differences are seen in the citizens who use the two hands. Ambidextral applies to someone who can use both the right hand and the right hand (and thus, very well), so Ambisinistral can use both the right hand and the right hand (and therefore somewhat tormented) when representing those who use both hands. The hemispheres of ambidextrous and left-hand brains is nearly symmetrical. Unlike rights that display extreme left-wing brain superiority. As the normal brain of a person who encounters cross-sensory vision of synaesthesia or combined senses. The instance of ambidexterity is much higher among synestheses than in the general population (and left hand).

The ambidextrous are more likely to possess the LRRTM1 gene (on chromosome 2).Schizophrenia is synonymous with this. Studies suggest that individuals of schizophrenia are more likely than those who are not schizophrenic to be Ambidextrous or left-handed. An additional research carried out on the website of the BBC Science showed that 9.2 percent of men and 15.6 percent of women reported being bisexual out of one percent of 255,000 respondents who reported similar simple writing with both hands. 4% of the left and 4,5% of the right and 6,2% of the right and 6,3% were said to be drawn to all genders in the same study in the same research.

People who identify as 'either-handed' score slightly lower overall in general intelligence testing, and most often those scores are lower in arithmetic, memory and reasoning.

The 87 mixed hand students have experienced more marked language disorders, and at 15 and 16, they have demonstrated a greater propensity for signs of ADHD and have academic success of both right and left students in the same study.

According to a report by Merrimack College, Ambidextraus may be swift to angry, indicating higher relations between ambidextrous and the left brain hemispheres. A follow-up research showed that enhanced contacts in the hemisphere are correlated with increased pain, malaise and irritation."

Is an ambidextrous person's handwriting identical regardless of which hand they use?

There are no studies on this particular subject. Even if there was, the trouble with anything involving ambidexterity is that researchers often hold differing definitions of the term. So any results would be based on whichever definition the researchers chose to assign and its value to you would depend on whether it matches your understanding of the word. And, it's not only scientists that have differing opinions.

Wikipedia says "Ambidexterity is the state of being equally adapted in the use of both the left and the right hand, and also in using them at the same time."

The article steps off into the weeds just a bit by including this in its definition: No it's not. This is a statement assigning at best a colloquial meaning to the term not based on established scientific fact.

One thing scientists can agree on, that has been well-documented, is that ambidexterity is determined by brain hemispheres that are not well-lateralized, meaning they're essentially symmetrical. This is determined by brain scans. There are no degrees of ambidexterity. You either are or you are not The **Oxford English Dictionary** defines it simply and broadly as able to use the right and left hands equally well.

Wordsense.eu includes writing in its definition and it's the only source I saw that does: Having equal ability in both hands; in particular, able to write equally well with both hands.

The inclusion of writing in the definition is important, making it easy to believe that only 1% of the world's population is truly ambidextrous.

Wikipedia and many other sources, including some bonafide studies, use the term in a much more relaxed sense. For example, someone who plays a musical instrument, because both hands are moving simultaneously and with purpose is considered ambidextrous. If I eat, write and golf left-handed, but use scissors and a can opener right-handed, I could be considered ambidextrous.

The hemispheres of the brain being symmetrical may result in the ability to perform tasks using either side of the body, but it does not mean they can be done in exactly the same way if the

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fundamentals of the task are entirely different, not without having some prior experience performing them.

The majority of people, ambidextrous or not, learn to write with a certain hand and stay with that hand throughout their lives. There are always exceptions. An ambidextrous person might switch off in certain circumstances. It's completely dependent on an individual's preference or necessity.

Because focusing on one hand is the norm for most everyone (ambi or not), writing with the other hand would take some getting used to regardless of an innate ability to adapt more easily to the process of writing with that hand.

It may feel natural to hold the pen in the left hand, for example, but it takes some practice to write left-handed if it's not something you've spent time doing. The mechanics of writing left-handed could not be more different than writing right-handed, especially in cursive. Printing is easy by comparison.

Left-handers push the pen across the page, making it necessary to hold the pen in a specific way to keep the ink flowing, avoid gouging the paper, smearing ink on their hand and on the paper. Many write with the tell tale hooked wrist to avoid these things and to see what they're writing. If someone isn't used to writing this way, their hand would start to feel very uncomfortable very fast.

An ambidextrous person would have to take the time to train their muscles to function in an entirely different way than when writing with their right hand. And, once they accomplished this, they would find they needed to hold the pen differently and make other adjustments for the reasons above. And because of this, their left hand writing is unlikely to be identical to that of their right hand.

## "Do the left and right hand of an ambidextrous person have a different handwriting style?"

The final product is the result of two factors: the anatomy of the hand (and how it is used — relaxed or tense, whether the movement comes from the fingers, wrist, or shoulder, etc.) — and the form dictated by the eye, not the hand.

If by style you mean cursive versus printing versus italic calligraphy, you mean form and that remains as a static ideal for either hand. If by style you mean the specific execution of that form, then of course not. Writing left to write is a very different process for right or left hands. Just think of the arc the pen makes when moving freely from the wrist: the arcs go in opposite directions. Flourishes and initiating strokes will have very different mechanics, and that is certain to show, if only in subtle rhythmic ways. This is not to say that right or left hands cannot produce beautiful, accurately represented forms.

If you yourself are ambidextrous, it might be a fun experiment to use different forms for the different hands. When I studied calligraphy with Lloyd R. Reynolds, he suggested to the left-handed students that they try italic right-handed, not because that's "better" but because they were learning an entirely new fine motor skill set and it turned out they were no less skilful than right-handed people using their dominant hand!

## **Barnard Law Collier**

## Editor, publisher, director Graphologyconsulting.com & scanmyhandwriting.com

The style part is mostly mechanical, the fact of changing sides of the body and peculiarities of the other hand. However, in most cases, include the formation of the letters, the rhythm, flow, size of letters, loops, angles, shape of strokes, and so forth, remains fairly stable. Signatures are another matter. They are intentional gestures and what they reveal is who the person wishes to be seen as, not as they may in fact be.

Over a quarter century our company has seen the ambidextrous handwriting of hundreds of people, some whom could write the samples at exactly the same time, as well as backward, and mirror image, all of which is style and skill and, it seems, some rare cerebral adaptation that splits the ability to draw similar lines. To be ambidextrous is a gift. It's a blessing for surgeons and pianists.

## "Can a left hander person have left brain dominance, and conversely a right-handed person has right brain dominance? And an ambidextrous person"

There are other ways the brain develops dominance. For example having a dominant eye, or a dominant ear when it comes to sharp listening ... also a dominate leg when it comes to performing a

certain task such as kicking a ball ... A right handed person may feel more natural kicking a ball with his left leg and/or vise-versa .... these are all controlled by dominant functions of the brain (with exceptions of cases where training was involved). In my personal opinion where someone is right or left handed and relationship with the predominate side of the brain that is used is mostly relative in nature .... some studies may show a leaning towards one side or the other as an "'overall average" ... this could be a " correlation" not a " causation" meaning that at an early stage of fetal development the cells split after left and right side of the body was already established to some degree and the twins are mirror opposite from each other because of the timing and nature of the cellular divide ...(I am paraphrasing a lot, so if anyone is aware of this theory or study just note that...) and then at some point the twin that had the right side of the cells was discontinued and absorbed by the body... Keep in mind this is at a very early stage and would have accrued way before the mother was even aware of her pregnancy ..... this left the one fetus that had all the properties of the dissolved twin except mirrored ... therefore they are left handed ..... this was an interesting theory and I don't know how widely excepted it is but it did hold some merit and logic ..... As far as ambidextrous people go, they are extremely rare and typically found in people with extremely high IO or cognitive function. For example, it was said that Leonardo da Vinci could draw and write with both hands at the same time and meet in the middle .... This would most certainly require a massive amount of cognitive function and high motor skill control in relation to how the brain operates when it comes to the human brain or mind and how it chooses to function with certain areas or tasks ..... I do believe their correlations but not definitive always this always that results from being left or right or even ambidextrous.

## **RESEARCH METHODOLGY**

The aim of this study is to collect and evaluate the collected data structures to analyse people changing hand preference or practice to beambidextrous. The developing advantages of being ambidextrous.

## METHODS:

Inspiration may come from unusual situations, under which average citizens are made into legends. In history, highly trained professionals who rely on motor skills were misfortune to practise their skills again in combination with the other less dominant side. **OBJECTIVE**:

The aim of this article is to discuss the problem of neurourgical ambidexterity.

Demonstrate the need to prosecute crime, the relevance and its rewards with respect to or signify the implementation of empirical methodology and techniques.

## SECONDARY DATA

Secondary analysis or desk study is a form of research requiring the utilisation of data already collected. In order to improve the cumulative efficacy of studies, current results are summarised and collated.

Primary analysis covers information from research reported in research findings and related journals. The public library, websites, knowledge gathered by the surveys etc. are the ways to render these records available. "Any government and NGOs often store and retrieve data which can be used for analysis purposes."

The secondary analysis approaches and examples used here are often:

**1. Data available on the internet:** "The internet is one of the most popular methods in which secondary data is obtained. Data can be conveniently accessed from the Internet with a click of a mouse."

This data are basically free of charges or a marginal download of existing data may have to be charged. There is a lot of material on blogs that firms or associations may access in order to satisfy their analysis needs. However, organisations just need to accept a legitimate and trusted website for knowledge gathering.

2. Government and nongovernment agencies: "Any government and non-governmental organisations can also gather data for secondary analysis. For example, there are useful and important data that corporations or organisations may use from the US Government Printing Office, the US Census Bureau and from Small Business Cents."

A certain cost is levied for the download or use of data by certain organisations. genuine and accurate proof from these bodies.

**3. Public libraries:** "Another strong tool for finding secondary study data is public libraries. Copies of significant studies done earlier in public libraries are available. They are a storeroom of valuable records and documentation that can be retrieved from."

These public libraries offer facilities that range from library to library. Libraries more also include a vast range of documents from the government including industry figures, broad databases and newsletters.

**4. Educational Institutions:** "It is sometimes forgotten how significant data was obtained from secondary study educational institutions. However, there is more research than any other market field in colleges and universities."

The obtained data was specifically for primary study purposes in universities. "However, corporations or organisations may contact and request information from educational institutions."

**5.** Commercial information sources: National newspapers, newspapers, journals, radio and television stations provide an outstanding collection of secondary info. The sources include insights on economic growth, policy agenda, consumer analysis, population segmentation and related issues from a firsthand viewpoint.

Businesses or organisations should request the most appropriate data for their analysis. Not only do businesses recognise future buyers, they also recognise the channels by which they can market their goods or services as a whole.

## DATA ANALYSIS

Profession/Neurosurgical Procedure	Forced/Willful	Inciting Factor	Outcome
Protession			
Finger guitarist (Billy McLaughlin)	Forced	Focal dystonia of playing hand	Released "Into the Light" playing with left hand
Pianist (Paul Wittgenstein)	Forced	Shot in right arm in World War I	Plano Concerto for the Left Hand as a 5-figured planist
Archer (Eklavya)	Forced	Teacher asked right thumb as Dakshana for teaching him	Learned with left hand to become one of the greatest archers in mythology
Pistol shooter (Karoly Takacys)	Forced	Accidental grenade explosion in right hand leading to emputation	Wen 2 Olympic medals by shooting with left hand

## HISTORICAL EXAMPLES

The tale of Billy McLaughlin is nothing less than remarkable, and a pure and important feature of our career is exposed to the neurochirurg. The reliance on fine motor skills. Dexterity derives from the Latin Dexter, which means right, because most people use the right hand to dominate and therefore be more skilled. A few people equally well use both paws. If surgeons, sportsmen or dancers. This expertise is necessary in other fissions, such as magicians, basketball players, conductors, and managers of several pots and bowls at the same time, but is not limited to circuitry, music, and others. The surgeon's willingness to let go of your self and an opportunity for training were not mentioned in an editorial by Wilder, a professor of chirurgy at MoontSinai Hospital. In the documentary of his life, McLaughlin claimed that the main obstacle at first was that I might be stupid. I'm a fashion enthusiast and it was hard to do something that seemed beautiful. "Similarly, any time a neurochirurge discovers a new technique, he is relearned by placing the first external drain for instance, executing such procedures as the first insular drill or the first Sylvain scatter. The processes are often carried out. Then he would throw away his pride and make errors and benefit about it. Wilder 's second hurdle is motivation because M Laghlia lost his fine motor abilities. The player wants to develop his non-selection of game danger."

DISSCUSSION

Extraordinary conditions have had an unusual effect. We begin to understand only as we give up what we are told. "The Austrian-American pianist Paul Wittgenstein made his debut in 1913. However, World War I broke out the year after, and the Russians took him in the strike on Ukraine on a right elbow. His arm was amputated at night, but he wanted to start practising as a five-fingered pianist. He then developed Piano Concrete, with the aid of his former instructor La-bor, to become his most popular composition, for the Left Hand after the war. Later on, Barchilon immortalised the life of Wittgenstein in a novel named The Crown Prince, a country view offered by the paediatric surgeon, Liebert, that most surgerists use their non-dominant hand in order to render the procedure more effective and successful. Nobody is such an ambidextrous, Lieber said. He said that the innate potential to be gained is genuinely ambidextrous.

We assume both opinions are right, but they appear to be opposite ends of the continuum. At first, a physician uses the non-dominant hand to recant, assist or dissect uncritical tissue regions. The surgeon continues with his skills development by positioning left shirts and eventual clipping with a bumpy aneurysm with the non-dominant side. If McLaughline is to progress as he did when he began using his left side, a surgeon would do this in the event of mistake, although he was advised that focal dystopia was extremely probable to arise in his left hand. Some cases would make the most sense if the surgeon were not the superior hand to conduct the operation. A left frontal ventricular surgeon who should not dominate the left hand to carry the catheter uses ventricular catheter, whereas a marker is palpated in the right hand (e.g. nasion)." This has the advantage that movement economies cause the surgeon to retain a reasonably good place.

The dominant hand is typically used either individually or as the lead hand for self-inflicted injury or suicides. "If the non-dominant hand is shown to have suffered fatal injury, so it poses concerns that suicide is the path to die. Evidence of the willingness to differentiate between suicide and murder is of no importance. The usage of handicraft in recognising missing individuals or cadavers has declined dramatically owing to recent advances in dentistry, imaging techniques, and in particular genetics. In living subjects, the efficiency of such movements or actions may be shown by handfulness. The topic is to execute activities in a particular series with one or two hands. A mathematical differentiation between right and left is feasible by systematic measuring of the anatomy of the shoulders and top limbs. However, since this method is just around 75% reliable, it may not only be possible to use the morphological handicap determination for living subjects, but also to classify unexplained cadavers or other post mortem tests."

## RESULT

The necessity and rewards of using both our hands with the same dexterity are just normal for us to comprehend. Ambidexterity may be learned which, if exercised, is a hereditary attribute. It was controversial that history reveals exemplary people.

In psychiatry, practitioners reach for what is affectionately known as "the DSM (Diagnostic and Statistical Manual of Mental Disorders, now in itsfifthedition)" to reliably identify anddiagnose aberrant social and behavioural conditions The DSM is founded on extensive empirical research spanning many decades, adding credibility to its method of classifying complexemotional and neuronpsychiatric states. Perhaps most importantly, the DSM is a living document, evolving in parallel with shifting human culture and insight gained from years of self-evaluation and criticism. For several purposes, the 2016 Modular Forensic Handwriting (Modular Method) edition audits by Drs Bryan Found and Caroline Bird is the DSM counterpart for forensic practitioners. The hierarchical modular solution established by the editors is aimed at standardising the human mechanism with simple biomarkers.. Practitioners of forensic feature-matching comparisons such as handwriting follow a similar process to determine whether an evidentiary sample is or is not consistent with a known source sample. With accepted practices can have significant human or probate consequences The Modular Approach to forensic handwriting examination developed by Found and his colleagues transforms the tasks of elimination and inclusion into a systematic orderly

process. The 2016 version of A Modular Approach is an extensive update to the edition published in this journal in 1999. In the nearly two decades since the first edition was published, there has been significantresearch in the fields of motorcontrol, forensics, human factors and machine-learning with implications or handwriting examination. Gating recent research in the area of human factors, Found and Bird call attention to the potential for bias and the need to in the absence protect against "cognitive contamination of evidence.

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# Study on handwriting features of ambidextrous persons by using image processing

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Abstract--- Handwriting Features of Ambidextrous Persons have been classified as a multi-class classification issue in the deep learning framework, where image recognition task is effectively to test a classifier who can efficiently discriminate each line of paragraph of handwriting. This is very common for a single classifier to be performed on different data sets with a standard deep learning algorithm. It may also be that the same classifying system performs differently with highly differing image instances due to the various manuscript styles of various people on the same numbers. In order to address this problem, it was crucial to develop ensemble learning approaches to enhance overall effectiveness and make the performance highly stable in various data sets. In this text, we are proposing a system involving the CNN-based removal of the data set from an image and algebraic fusion of various words in images to classifies for trained in different sets of edges, which are prepared by means of feature selection applied to the original CNN feature set. Experimental results show that a fusion of classification images can achieve a descriptive word.

*Keywords*--- handwriting features, ambidextrous persons, deep learning, convolution neural network, image processing.

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#### Introduction

Ambidexterity is defined as the ability to use both hands equally skilled. It can also mean the ability to simultaneously use both hands. Just 1% of the term population is ambidextrous according to study. So, it's a very unusual talent to possess. But it is surprising that few prominent actors and historical figures were still ambidextrous. India's first President, Dr. Rajendra prasad, Albert Einstein, LeBron James, Benjamin Franklin, Leonardo Da Vinci, and Nikola Tesla are the most well recognized individuals with the same ability. The inventor of AC current Nikoa Tesla and the man who made the world such powerful and effective electric motors that Tesla's designs are still used today. Nikola Tesla wrote in his autobiography about being ambidextrous. He said, "I'm ambidextrous now, but I was then left and my right arm had relatively little strength" [1]. Ambidextrous Leonardo Da Vinci was one of the many talents Florentine artists possessed. He used both his hands to make paintings because he hurt his dominant right hand in childhood. On 4 Aug 1473, when the artists were only 21 years old, the Opificio delles Pietre Dure (OPD) art conservation and research institution in Florence, Italy carried out diagnostic examinations of a painting made by da Vinci [2].

One inscription the date written in the top left-hand corner on the front of the drawing is a reverse inscription written by a reflection in a mirror, the Uffizi said. Da Vinci used this so-called mirror writing several times, even though it's vague. The other note was usually drawn from left to right on the back of the page. Frosinini and her colleagues studied in high resolution images and infrarot illumination the inscription and painting under a microscope. They often use a fluorescent X-ray device and a handheld computer for organic matter identification. They determined that the inscriptions were written by da Vinci, that the writing was done in the drawing with the same hue, and that da vinci samples were written according to the sentence. But the contrast between the two inscriptions suggests that da Vinci had composed them with opposite hands. Since examining da Vinci 's traditional penmanship in a variety of texts, the conservators concluded that his left hand had to compose the text inverted to the fore of the drawing, while his non-dominant right hand wrote the back of the text [3].

The distinctive handwriting of each individual has been intuitively observed for a long time. Methods have been developed for several decades for human handwriting knowledge. However, studies of the quantitative evaluation of the discriminatory authority of handwriting are important, especially in view of the acceptance of proof by courts presented by challenged examiners (QDE) [4]. The handwriting segregation of a diverse group from around the United States has been confirmed. Students of veena vadini have this ambidextrous capacity to write in their school notebook with equal strength to both hands. The singularity of the Veena Vadini School children is not only written with both hands. Yes, besides that there are many other wonders for children in this school that are very simple. Simultaneously, children who write with both hands simultaneously can write in six different languages, including Hindi, English, Urdu, Sanskrit, Arabic and Roman [5].

#### Literature Review

(Rahman et al., 2020) identified the author's use of disguise features, which are slant shift, printing process, use other hands to copy handwriting, artificial hesitations, pen-lifts, alterations in letter formation, lengths and height, etc. Nevertheless, inconsistency is the key attribute that suggests camouflage. To determine the most popular disguise techniques, 100 authors were picked and told to copy a text using some disguise. The majority of authors have been noted to alter the tendency to write, use grotesque letter types, alter the image presentation and the writing skills, and use pen-letters as an effective disguise [6]. (Firdaus et al., 2020) analyse to classify different attributes of left handedness and identified those features in a motion in writing that were found essentially opposite to those found in right-hand writers' writing. Based on these attributes, whether a person is left or right may be determined. This study concluded that writing with opposite hand demonstrates typically a lower degree of writing abilities due to unregulated retaining of writing instruments as well as sudden lateral strokes, uncertain stroke motions, the absence of smooth writing and the uncustomary style of letters etc [7].

(Jemimah et al., 2019) analyse the request for writings from 135 individuals to ascertain the most common camouflage strategies used by authors to change their prose, such as pitching, uncomfortable hand, hand printing, scale, layout, angularity, spacing, approach and terminal lines, upper and lower extension, capital and lower case songs, etc. In case of odd camouflage, only 8 people out of 135 used clumsy hands to mask their face. Unusual handwriting did not resemble standard writing similarly. It seems like many authors would follow this form, but few used it awkwardly because they struggled to deliver unaccustomed hand writing. The frequency of shift occurrence was calculated in each feature. The findings have shown that disguise is not reliable or effective. Elements such as alteration or replacement were found to be primarily used to modify and dramatically influence the imagery of the text [8]. (Kalita et al., 2019) analyse that representing 4000 specimens written with the right and left hand. Everything topics completed the penalty for forgery. It has been found that 9 per cent of the left-hand writing and the other hand-writing is characterized by usual hand-writing, as flat r, d, l and other looped letters, vertical slant, fines or odd shaking, open T and d base, t-bar crossing, sudden direction changes, very little executions ability. It was pointed out that if major variations are carefully measured, uncomfortable writing can be found at the roots [9].

(Cilia et al., 2019) analyse that the pen movements of particularly left-handed writers who keep left-handed images of up-side-down strokes and explains some features such as I colon and other punching points, which render forms like bowls or sloping vertically while writers compose rapidly. T-bar indicates that the left-hand writer alone used the hand base for a finger movement that was immoveable. Is the right-hander found? The hand is free to step ahead while the t is crossing from left to right while the left hand is crossing? S side, when passing over previously written lines while writing, smudge patterns may occur. Impressions of tin from the hand base are moved to the paper while the hand moves down to the next line of writing [10].

## **Problem Statements**

The main problems are to classify each word of handwriting feature. Overfit data works not well. During the testing and training process, it doesn't predict results. Handwriting paragraph feature data is not easy to predict and implement the results. Data for this modelling issue consists of structured data from multiple sources so pre-processing of data. The main problems are to implement and find each line with boundary rectangle with the main important feature of the datasets as it is difficult to analyse.

## Objectives

- Classify and implement the handwriting features of ambidextrous persons and non-ambidextrous.
- Predicting the images of handwriting features of ambidextrous persons and non-ambidextrous.
- Analyze the images data of handwriting features of ambidextrous persons and non-ambidextrous with each line of paragraph.

## Methodology

We have used python and deep learning programming language for implementation. We have used Anaconda software. Python is an effective programming language for the creation of a deep recurrent model of neural network. It supports in addition, a version of Python 3.7.1 used for this study is used. In the code creation process, Anaconda jupyter notebook python IDE is used; it is intended for operations in data analysis. A variety of science libraries, including Pandas, Numpy, Scipy, Matplotlib, sklearn and more, are available at Jupyter Notebook. It also provides advanced analysis, debugging, and editing capabilities in many apps, ("Jupyter Notebook: Anaconda Cloud"). The following libraries have been used such as numpy, pandas, matplotlib, scipy, seaborn and tensorflow etc.

## **Convolution Neural Network**

Deep learning is a machine learning tool that provides multiple linear and nonlinear processing devices with a high level of abstraction in a deep architecture. A variety of applications currently use numerous deep learning techniques. It included auto coders, stacked automobile encoders, Boltzmann restricted machines and deep faith networks. In recent years, both vision systems and medical image analysis have gained in popularisation in the CNN-based methods [11]. CNN are micro perceptron evolutionarily inspired variants. In raw image pixels, visual patterns are also immediately identified. The pre- processing of CNN images is limited in many cases. These deep networks are explored by means of multiple layer neurons by small patches of the input image called receptive fields [12]. In order to ensure some variance for dimension, shifted and distortion, CNN combines three architectural ideas. It presents the first CNN model to recognise manually developed characters [13]. The local associations of patterns among CNN neurons in adjacent layers are taken as subsets in layer m1, units that have spatially adjacent convolution layers to exploit the local spatial correlation, for

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input from hidden units of layer [14]. Each CNN filter hello is further replicated across the entire field of vision. These filters share a characteristic map weight and bias vectors. The common weight gradient is the sum of the common parameter frames. A function model is obtained in sub-regions of the entire image, when the convolutions are rendered [15]. This process includes converting the image or function map of the input with a linear philtre and adding a bias followed by a non-linear philtre application [16]. A bias data is assigned to be irrespective of the classification layer output. The bias values enable us to move either the node's activation function left or right [17]. The weights, for example for a sigmoid function, regulate the steepness of the output, while the distortion is used to offset the curve and allow the model to suit better. The bias values are formed from the testing set and can be controlled by a variable [18]. The kth philtres are indicated as hk in a given layer and their philtres are determined by the weights Wk and bias bk. Where tanh is the hyperbolic function of the tan and is used for convolution. There are two secret CNN layers where m 1 and m both contain 4 and 2 maps, i.e. h and h1 referred to as w1 and W2. Figure. The calculated using a  $2^{*}2$  window in the following layer as shown in Figure.3 on coloured squares from the pixels of the m1-level [19]. The weights of these philtre maps are 3D tensors, where there are indices for input characteristics, while pixel co-orders are given by the other two dimensions. In combination, Wk1 represents the sum associated with each pixel in a hidden layer m with the hidden layer m1 map and with i-j, j, and j coordination [20].

### **Results and Discussion**

In this evaluation, we divide the entire feature set of three dataset into different categories. It is intended to assess the number of variables who apply for testing and testing process. Every experiment was performed on the same computer with 1.6 GHz processor and 8 G memory configurations. Evaluation was performed for all study classifiers and four algorithms were implemented for training and testing or model assessment.





Figure 1. handwriting paragraph with edges of images

Fig.1 analyse the handwriting paragraph with the edges of images. Total number of images in dataset is 108. There are five outputs from images dataset. These images are the handwritten notes. These handwritten notes written from left hand side. The aim of this study is to analyse that left-hand side can right proper word in comparison of right-hand side. The dataset is divided into two sets: the exercise set (70%) and the validation set (30%). Firstly, we have import original images. Fig.1 analyse the images result with edges. We have pre-processed the images with edges. For classify images data, there are aims to implement handwriting paragraph. Images Data used for Predictive handwriting paragraph in structured or unstructured form. Structured data is usually pre-process during testing and training steps.

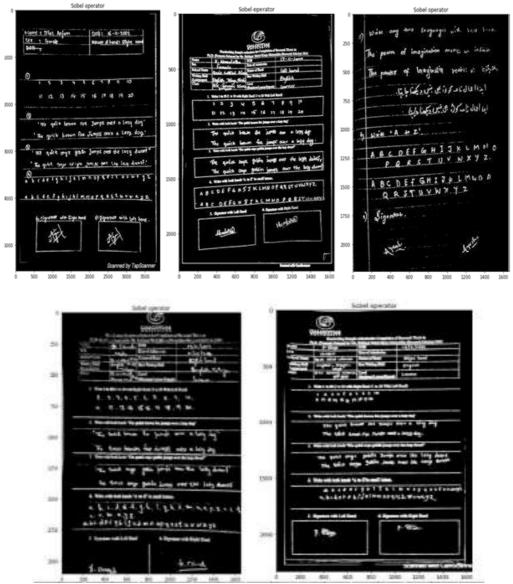
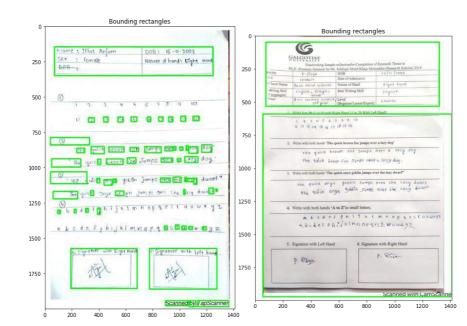


Figure 2. Sobel Operators Outputs with Dark Background

Fig.2. analyse the handwriting paragraph images with dark images. After preprocess the images. We have converted the images into dark images. Here from this result, the words of paragraph are clear. Here we have converted background into dark. Unstructured data is a critical issue for image classification, unshaped and dispersed. Unstructured data is hard to categorize and to choose relevant attributes from it. We have resolve unstructured data.





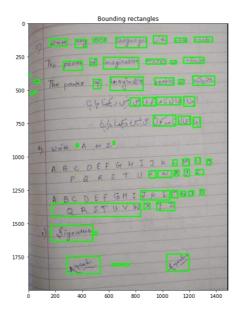


Figure 3. Bounding Rectangles Outputs with Dark Background

Fig.3 analyse the handwriting paragraph with boundary rectangles. Total number of images in dataset are 108. Here we are showing five results of the images. These results showing that the word with bounding rectangle is giving clear identification of words. But words without bounding rectangle is not clearly understandable words. The text inside the bounding showing accustomed and the text outside the bounding analysing unaccustomed. Here we have pre-processed the words of the images. Dataset images size is high-cardinality field for data identification. In redundant data, other highly correlated variables that carry the same information should be removed. If one predictor variable can be linearly predicted by other with a substantial to highly correlated. Collinearity can cause some regression coefficients to have wrong edges.



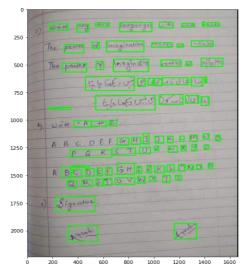


Figure 4. Analyse the handwriting features of ambidextrous persons

Fig.4. analyse the handwriting features of ambidextrous persons. This is the final step to analyse that left hand can write proper words in comparison of right hand. From the result, we can analyse that many words are not clear. We cannot read them clearly. We can write left hand but it's not predicting clear identification in comparison of right hand. Here each line of paragraph is underline with green colour. The text inside the bounding showing accustomed and the text outside the bounding analysing unaccustomed. The data is divided into two parts such as testing and training for each model. Here, our aim to take only content inside the box. We have used convolution neural network technique to classify handwriting paragraph. We have taken 11 images of handwriting. The results classify the proper content distribution inside boundary. With this output texts are clear and understandable.

#### Conclusion

This study concludes that handwriting paragraph is able to classify and implement with each line. In this study, we have used Anaconda software for implementing the code with python and deep learning programming language. Anaconda is a provisional free distribution of deep language and Python programming language for computation code, aimed at optimising package administration and deployment. Anaconda, which was created by Travis Oliphant and Peter Wang established it and supported in 2012. We have used python and python programming language. It works well on image datasets. It can work with small and big dataset. We have taken convolution neural network algorithm to classify each line of handwriting paragraph. From the results, it is concluded that all CNN algorithm is more efficient and good in classification of handwriting paragraph. CNN algorithm requires a detailed fine tuning of the edges and a considerable number of situations for the data collection. It constructs the algorithm model only with precision and accurate classification. Therefore, the CNN algorithms for images data to classify each word and each line. However, from the results, it is clear that CNN algorithm works efficient with images dataset to predict word to understand clearly and linearly.

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- 21. Declaration of Interest Statement

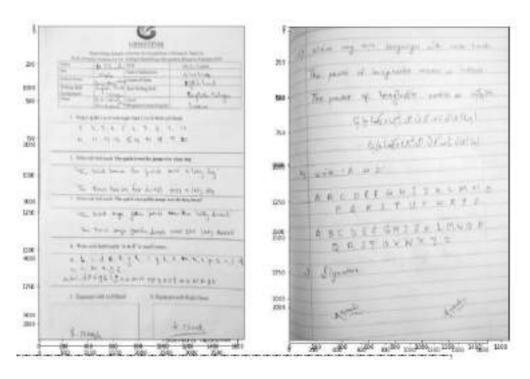
# **Declaration of interests**

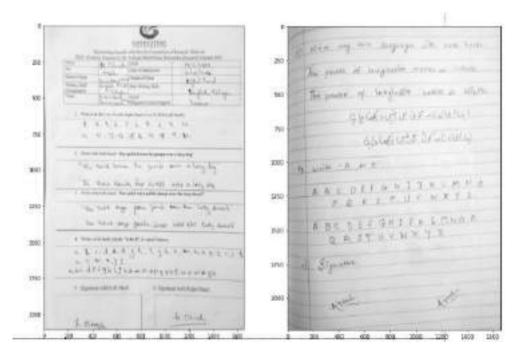
- The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.
- □ The authors declare the following financial interests/personal relationships which may be considered as potential competing interests:

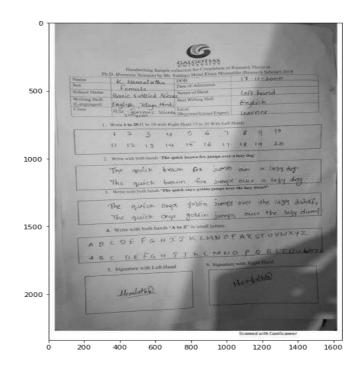
Siddiqui Mohammed Khaja Moinuddin, Dr. Suneet Kumar, Dr. Sayeed Ahmed, Dr. (Prof) Arvind Kumar Jain

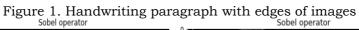
Figure











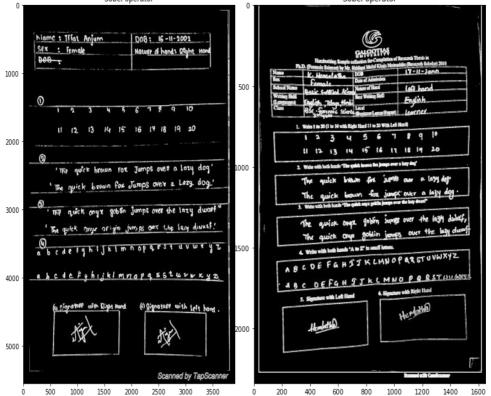
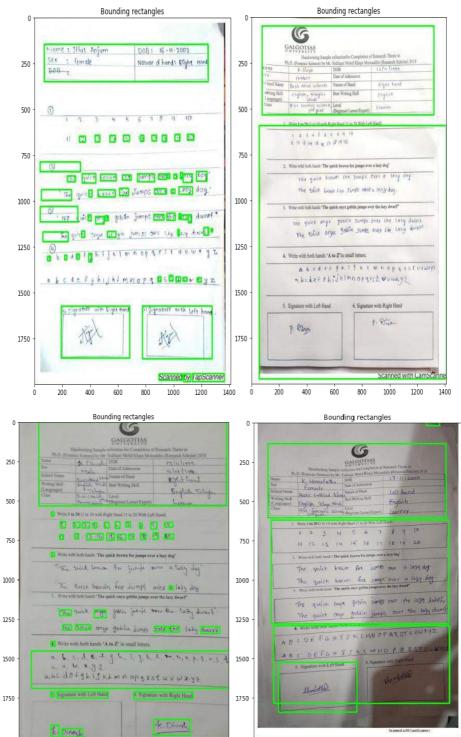




Figure 2. Sobel Operators Outputs with Dark Background



800 1000 1200 1400 0 200 400 600 800 1000 1200 1400

200 400 600

0

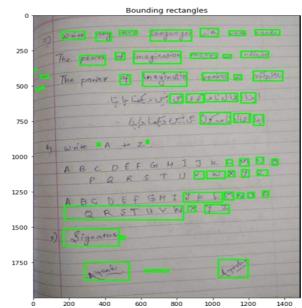


Figure 3. Bounding Rectangles Outputs with Dark Background



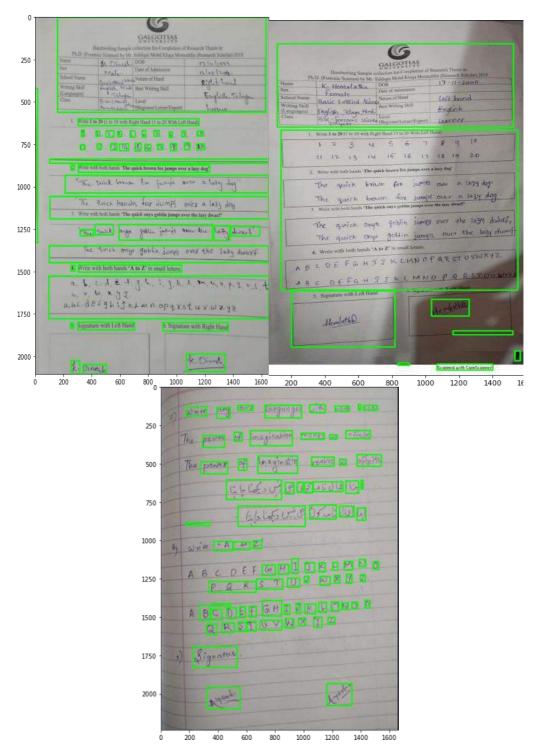


Figure 4. Analyse the handwriting features of ambidextrous persons