School of Computing Science and Engineering
Bachelor of Computer Applications
Semester End Examination - Nov 2023

Duration : 180 Minutes
Max Marks : 100

Sem V - E1UA505C - Programming in Java

General Instructions
Answer to the specific question asked
Draw neat, labelled diagrams wherever necessary
Approved data hand books are allowed subject to verification by the Invigilator

1) What is the task of main method in a java program? — K1 (2)

2) What is String in Java ? Is String a data type? — K2 (4)

3) Explain what is meant by the terms subclass and superclass. — K2 (6)

4) Create a custom exception hierarchy in Java for a student management system. Design exception classes for scenarios like invalid enrollment, low attendance, and course conflicts. — K3 (9)

5) A Thread is runnable, how does it work? Explain with example. — K3 (9)

6) Write a complete program that will display the first ten lines from a text file. The lines should be written to standard output, System.out. — K5 (10)

7) Compare and contrast the benefits and drawbacks of using ArrayList and LinkedList in Java. Assess their performance for insertion, deletion, and retrieval operations. — K4 (12)

8) Design a class to represent a bank account. Include the following member: Data Member, Name of depositor, Account number, Type of account, Balance amount in the account Method and Constructor to provide initial values To assign initial values. Write methods in which a user can deposit an amount, withdraw an amount after checking balance. — K5 (15)

9) Discuss about the File Input stream and File Output Stream in java with examples — K5 (15)

10) Write a program to implement a class Teacher contains two fields Name and Qualification. Extend the class to Department, it contains Dept. No and Dept. Name. An Interface named as 318 College it contains one field Name of the College. Using the above classes and Interface get the appropriate information and display it. — K6 (18)