

School of University Polytechnic

**Diploma in Computer Science and Engineering
SUMMER/BACKLOG Semester End
Examination - Jul 2024**

**Duration : 180 Minutes
Max Marks : 100**

Sem IV - N1DC401B - Machine Learning and Its Application*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*

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| 1) | Define numpy in python with example | K1(2) |
| 2) | Explain the role of reward functions in reinforcement learning. | K2(4) |
| 3) | Explain the concept of feature extraction in machine learning. | K2(6) |
| 4) | Illustrate the concepts of clustering approaches. How it differ from classification. | K3(9) |
| 5) | Illustrate the applications of clustering and identify advantages and disadvantages of clustering algorithm. | K3(9) |
| 6) | Examine the steps in Linear Regression with example. | K5(10) |
| 7) | Analyze the concept of reinforcement learning and its distinction from supervised and unsupervised learning methods. | K4(12) |
| 8) | What is data cleaning. Explain the list of data cleaning tasks in pandas. | K5(15) |
| 9) | What is Pandas and Eplain the problems does it solve in the realm of data analysis and manipulation. | K5(15) |
| 10) | Discuss the Data handling techniques in machine learning. | K6(18) |