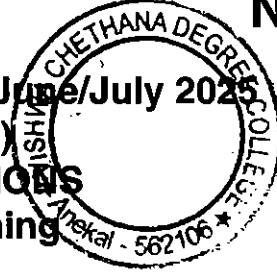




**NP – 1021**

**VI Semester B.C.A. Examination, June/July 2025**  
**(NEP Scheme) (F+R)**  
**COMPUTER APPLICATIONS**  
**CA 27 : Machine Learning**



Time : 2½ Hours

Max. Marks : 60

**Instructions :** 1) Read **all** questions **carefully** and answer **accordingly**.  
2) Answer **all** Sections.

**SECTION – A**

- I. Answer **any four** questions. **Each** question carries **two** marks. **(4×2=8)**
- 1) What is machine learning ?
  - 2) Write any two applications of supervised Machine Learning.
  - 3) What is Data Preparation and Data transformation ?
  - 4) What is clustering ?
  - 5) Give a brief example for regression problem.
  - 6) What is Image segmentation ?

**SECTION – B**

- II. Answer **any four** questions. **Each** question carries **five** marks. **(4×5=20)**
- 7) Why Python is preferred choice for Machine Learning Application ?
  - 8) Write a python code to import Csr file using pandas library.
  - 9) What is re-inforcement learning ? Write two applications of it.
  - 10) Explain difference between regression and clarification.
  - 11) How Naïve Bayes classifier works ?
  - 12) What is CART method ? How it works ?

**P.T.O.**



## SECTION – C

III. Answer **any four** questions. **Each** question carries **eight** marks. **(4×8=32)**

- 13) Explain phases of building machine learning model.
  - 14) What is NumPy and Pandas ? Why it is needed for ML ? Explain its features.
  - 15) a) How pre-processing phase will help to get better performance of the model ?  
b) Write the python code to demonstrate K-Mean Clustering.
  - 16) a) Explain decision tree algorithm.  
b) Explain K-NN Algorithm.
  - 17) Mention the advantages and disadvantages of Linear models.
  - 18) How clustering is used in Semi-Supervised Learning ?
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