



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 ?



SECTION – C

III. Answer **any four** questions. **Each** question carries **eight** marks. **(4x8=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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