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 ?

————————