



SE – 541

IV Semester B.C.A. (AI and ML) Examination, June/July 2026
(SEP 2024-25)

COMPUTER SCIENCE
24BCAE2 : Introduction to Machine Learning

Time : 1½ Hours

Max. Marks : 40

Instruction : Answer all Parts.

PART – A

- I. Answer **any five** questions. **Each** question carries 2 marks. (5×2=10)
- 1) List any two applications of Machine Learning.
 - 2) What is a labeled dataset ?
 - 3) Define confusion matrix.
 - 4) What is regression in Machine Learning ?
 - 5) Write the purpose of validation data.
 - 6) Explain K-means clustering technique.

PART – B

- II. Answer **any four** questions. **Each** question carries 5 marks. (4×5=20)
- 7) Differentiate between regression and classification tasks with suitable examples.
 - 8) Explain the Machine Learning framework including all its phases.
 - 9) Describe logistic regression and its applications.
 - 10) Explain Naive Bayes and K-Nearest Neighbors (KNN) classification algorithms.
 - 11) Discuss Hierarchical Clustering and DBSCAN clustering techniques.
 - 12) Explain clustering validation measures and their importance.

PART – C

- III. Answer **any one** question. **Each** question carries 10 marks. (1×10=10)
- 13) Define Machine Learning. Describe the different types of Machine Learning in detail.
 - 14) Describe performance evaluation metrics.

