



Avinashilingam Institute for Home Science and Higher Education for Women

(Deemed to be University Estd. u/s 3 of UGC Act 1956, Category 'A' by MHRD)
Re-accredited with 'A++' Grade by NAAC. Recognised by UGC Under Section 12B
Coimbatore - 641 043, Tamil Nadu, India

Continuous Internal Assessment Test I – August 2025 III SEMESTER

Class : II UG
Major : B.Voc(AI&ML)

Time: 2 hours
Maximum Marks: 60

21VAIC10 Fundamentals of Machine Learning

Course Outcomes:

At the end of the course, students will:

1. To introduce the basic concepts and techniques of Machine Learning.
2. To have a thorough understanding of the Supervised and Unsupervised learning Techniques.
3. To study the various probability based learning techniques and to understand graphical models of machine learning algorithms.

Part-A

6x1=6

Choose the correct answer

1. Among the following option identify the one which is not a type of learning CO1K3
a. Semi unsupervised learning b. Unsupervised learning
c. Reinforcement learning d. Spervised
2. Identify the kind of learning algorithm for "facial identities for facial expressions". CO1K2
a. Prediction b. Recignition Patterns c. Recognizing anomalies d. Generating Patterns
3. What is the application of machine learning methods to a large database called? CO2K1
a. Big Data Computing b. Internet of Things
c. Data Mining d. Artificial Intelligence
4. Following are the types of supervised learning _____ CO2K2
a. regression b. classification c. subgroup discovery d. All of above
5. Data used to build a data mining model. CO2K2
a. training data b. hidden data c. test data d. validation data
6. In simple term, machine learning is _____ CO2K1
a. prediction to answer a query b. training based on historical data
c. All of above d. None of above

Part- B

3x6=18

Answer ALL Questions

Each answer should not exceed 400 words or two pages

7. a. Define Machine learning? Briefly explain the types of learning. (or) CO1K3
7. b. Examine issues in machine Learning. CO1K2
8. a. Differentiate classification and regression. (or) CO1K2
8. b. Differentiate between Training data and Testing Data. CO2K3
9. a. Explain the process of Supervised Learning Model. (or) CO2K2
9. b. Explain different Types of data in Machine Learning with example. CO2K2

Part-C

3x12=36

Answer ALL questions

Each answer should not exceed 800 words or four pages

10. a. Explain Classification, Clustering, Perceptron. (or) CO1K1
10. b. Elaborate the Version Spaces and the Candidate Elimination Algorithm. CO1K3
11. a. Discuss Back Propagation Error with example. (or) CO2K1
11. b. Discuss Support Vector Machine. CO2K3
12. a. Explain Decision trees and constructing Decision trees. (or) CO2K4
12. b. Briefly explain about Boosting and Bagging. CO2K1

No. of Copies : 60

Staff in-charge: Dr.T.Prabha