

**Indian Maritime University**  
**(A Central University, Govt of India)**

**Supplementary Examinations – March/April 2025**

**Programme Name: B Tech (ME)**

**Semester: VI**

**Subject Code: UG11T4601**

**Subject Name: Artificial Intelligence and Machine Learning**

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Date: 23.04.2025

Max Marks: 70

Duration: 03 Hrs

Pass Marks: 35

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General Instructions

- (i) All Sections (A, B & C) are to be attempted.
- (ii) Options, if any, are specified in respective section.

**Section A**

Ten MCQs/Fill in the Blanks of 01 Mark each – Choose the correct answer as applicable.

1. AI Stands for \_\_\_\_\_.
2. Supervised Learning deals with \_\_\_\_\_ Data.
3. ANN stands for \_\_\_\_\_.
4. Lazy learner algorithms are \_\_\_\_\_ than eager learner algorithms during their training period.
5. Shapira is developed in the year \_\_\_\_\_.
6. When AI deals with specialized problem then it is called \_\_\_\_\_ AI.
7. Uncertainty in computation deal in the area of mathematics call \_\_\_\_\_.
8. Hidden layers are used in the \_\_\_\_\_ Learning under ML.
9. IoT stands for \_\_\_\_\_.
10. DFS stands for \_\_\_\_\_.

**Section B**

Five Questions of 02 Marks each

11. What are the different layers used in ANN?
12. What is Sample Space?
13. What are the different types of Machine Learning?
14. Name four ML classifiers.
15. State Minimax principle.

### Section C

Seven Questions of 10 Marks each of which any 05 questions to be answered.

16. Explain the ML classifier "Decision Tree" and "K-Nearest Neighbour(KNN)".  
5+5
17. Define AI. State & explain the purpose of two AI system which are used as smart assistance. 4+3+3
18. State different types of states in Game Tree. Draw a partial game tree for Tic-Tac-Toe game and explain all types of states. 3+(4+3)
19. Define "Experiment" & "Event" in probability theory with example. Consider the experiment "Throwing two dies", calculate the probability of sum of the outcome from two dies are Even. (4+2)+4
20. State & Explain Supervised and Unsupervised Learning. 5+5
21. What is Deep Learning? Briefly Explain the concept of Artificial Neural Network with the help of Deep Learning. 3+7
22. Briefly discuss about the social implications of AI including employability. 10