(FOR THE CANDIDATES ADMITTED

DURING THE ACADEMIC YEAR 2022   ONLY)   REG.NO. : [　　　　　]

| 22UCS6E4 |

N.G.M.COLLEGE (AUTONOMOUS) : POLLACHI
END-OF-SEMESTER EXAMINATIONS : MAY 2025

BSC Computer Science-Aided   **MAXIMUM MARKS: 50**

SEMESTER-VI   **TIME : 3 HOURS**

PART – III
22UCS6E4-ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING
SECTION – A   (10 X 1 = 10 MARKS)

ANSWER THE FOLLOWING QUESTIONS.   (K1)

1. _____ respond to immediate stimuli from their environment and take actions based on those stimuli
   a) Active agent   b) Reactive agents   c) Proactive agent   d) Multi agent

2. _____ are the actions which occur in our world
   a) Events   b) Performance   c) Object   d) Facts

3. _____ are used to represent the events and objects in the real world.
   a) Probability   b)Random variables   c) Variables   d) Conditional Probability

4. Learning allows the agent to _____to thechanges in the environment and improve its performance over time.
   a) work   b) space   c) adapt   d)manage

5. Data consisting of a limited number of possible values can be considered_____
   a) categorical data   b) ordinary data   c)binary data   d) data variables

ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES   (K2)

6. Define state space model.
7. List different types of knowledge.
8. State the various causes of uncertainty.
9. Define Transition.
10. What is continuous random variable?

SECTION – B   (5 X 3 = 15 MARKS)
ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.   (K3)

11.   a)Discuss in detail the various types of agents with example.
                        (OR)
    b)Demonstrate the Hill climbing algortithm with example.

| Ethical paper |

12. a)List the various logical connetivities and explain it with example.

(OR)

b)State the various operations which are performed on the classical sets with example.

13. a)Write short notes on semantics of Bayesian network.

(OR)

b)Explain in detail dynamic Bayesian network.

14. a)Classify the various types of sequential decision making process.

(OR)

b)Give short notes on Markov decision process.

15. a)Crticize the concept of Feed Forward network function with example.

(OR)

b)Brief about k-means clustering with example.

SECTION – C (5 X 5 = 25 MARKS)
ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.(K4 (Or) K5)

16. a)Summarize the concept of Generic algorithm with example.

(OR)

b)Examine the Alpha Beta pruning with example.

17. a)Explain in detail Fuzzy rules and reasoning.

(OR)

b)Criticize the concept of functional blocks of interference system.

18. a)Narrate the concept of variable elimination algorithm.

(OR)

b)Describe the concept of Hidden Markov model.

19. a)Enlist the various types of Sequential decision problems and explain it.

(OR)

b)Enumerate the concept of Multi agent decision theory.

20. a)Evaluate the Kennel methods with example.

(OR)

b)Discuss in detail Boosting algorithm.

****

Ethical paper