Roll No. ☐☐☐☐☐☐☐☐☐☐☐☐☐

Total No. of Pages : 02

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B.Tech. (CSE) (Sem.–6)
ARTIFICIAL INTELLIGENCE
Subject Code : BTCS602/18
M.Code : 79250
Date of Examination : 18-06-2024

Time : 3 Hrs.   **Max. Marks : 60**

INSTRUCTIONS TO CANDIDATES :
1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.**

SECTION-A

1. **Write briefly :**

    a. Define Artificial Intelligence.

    b. What is declarative knowledge?

    c. What do you mean by utility theory?

    d. Explain Fuzzy logic.

    e. Define Inference engine.

    f. Define probability.

    g. What is a search graph?

    h. What is state space?

    i. Define conditional probability.

    j. What is dynamic programming?

SECTION-B

2. Explain adaptive dynamic programming with suitable example.

3. Explain Breath First Search in detail with suitable example.

4. Explain Bayesian Network with suitable examples.

5. What do you mean by Utility functions, explain in detail?

6. Explain Passive reinforcement learning in detail.

SECTION-C

7. Explain A* algorithm in detail with suitable examples.

8. Explain adaptive dynamic programming and active reinforcement learning in detail with appropriate examples.

9. Define conditional probability and explain Bayes rule in detail.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.