

**NP – 399**

**V Semester B.C.A. Examination, February/March 2024  
(NEP) (Freshers)  
COMPUTER SCIENCE  
Artificial Intelligence**

Time : 2½ Hours

Max. Marks : 60

**Instruction : Answer any 4 questions from each Parts.**

**PART – A**

**I. Answer any four questions. Each question carries 2 marks. (4×2=8)**

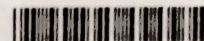
- 1) List any two weak AI and strong AI.
- 2) Explain the properties of minmax algorithm.
- 3) Define implication with truth table.
- 4) List different types of learning.
- 5) Define any two disadvantages of Fuzzy logic.
- 6) What do you mean by clustering ? List any two popular clustering algorithm.

**PART – B**

**II. Answer any four questions. Each question carries 5 marks. (4×5=20)**

- 7) Explain agents and its environment with a neat diagram.
- 8) Explain backward chaining with an example.
- 9) Explain decision trees.
- 10) Explain any 5 applications of computer vision.
- 11) Explain left most and right most derivation. Construct parse tree with an example.
- 12) Explain any five characteristic of expert system.

**P.T.O.**



## PART – C

III. Answer **any four** questions. **Each** question carries **8** marks. (4×8=32)

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|-----|--|---|
| 13) | a) Explain 8-queens problem with a neat diagram.                   | 5 |
|     | b) List any three advantages of A* search.                         | 3 |
| 14) | a) Define unification in FOL. Write the pseudocode of unification. | 6 |
|     | b) What do you mean by chunking in NLP ?                           | 2 |
| 15) | a) Explain Bayes' Theorem in AI.                                   | 6 |
|     | b) What is uncertainty in AI ?                                     | 2 |
| 16) | Explain the architecture of ANN with a neat diagram.               | 8 |
| 17) | a) Briefly explain machine learning life cycle.                    | 5 |
|     | b) List 3 disadvantages of Robotics.                               | 3 |
| 18) | a) Explain how to build NLP pipeline with example.                 | 6 |
|     | b) Define non-monotonic logic.                                     | 2 |
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