



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.

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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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