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.

PART – C

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

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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