



C20-AIM-403

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**BOARD DIPLOMA EXAMINATION, (C-20)**  
**OCTOBER/NOVEMBER—2023**  
**DAIM – FOURTH SEMESTER EXAMINATION**  
**ARTIFICIAL INTELLIGENCE**

Time : 3 hours ]

[ Total Marks : 80

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**PART—A**

3×10=30

- Instructions :** (1) Answer **all** questions.  
(2) Each question carries **three** marks.  
(3) Answers should be brief and straight to the point and shall not exceed five simple sentences.

1. Write the need of PROLOG.
2. Define 'List' in PROLOG.
3. Define Artificial Intelligence.
4. Write the criteria for success.
5. List the approaches to knowledge representation.
6. Define declarative knowledge.
7. What is minimax search procedure?
8. Write the importance of expected value.
9. Write the importance of Neuro-Fuzzy systems.
10. Define crisp sets.

**PART—B**

8×5=40

- Instructions :** (1) Answer **all** questions.  
(2) Each question carries **eight** marks.  
(3) Answers should be comprehensive and criterion for valuation is the content but not the length of the answer.

**11.** (a) Describe how to install Prolog in Linux.

**(OR)**

(b) List and explain various input/output operations.

**12.** (a) Explain Un-informed Breadth First Search method.

**(OR)**

(b) Explain the production systems.

**13.** (a) List and explain the issues in knowledge representation.

**(OR)**

(b) Explain forward and backward reasoning.

**14.** (a) Explain Alpha-Beta Pruning method.

**(OR)**

(b) Explain the components of search problem.

**15.** (a) Explain Fuzzy Bayesian networks.

**(OR)**

(b) Explain Fuzzy sets.

**PART—C**

10×1=10

- Instructions :** (1) Answer the following question.  
(2) The question carries **ten** marks.  
(3) Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer.

**16.** Write an algorithm for A\* and write its applications.

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