

Roll No.

Total Pages : 02

BT-7/D-18

37205

ARTIFICIAL INTELLIGENCE

IT-403-N

Time : Three Hours]

[Maximum Marks : 75

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit.

Unit I

1. (a) Differentiate classical, romantic and modern periods of AI. 7½
(b) What do you mean by conflict resolution ? Discuss alternative approaches for conflict resolution. 7½
2. Explain production system architecture in detail. 15

TOPPERWorld

Unit II

3. Differentiate propositional logic and predicate logic. Explain forward and backward chaining algorithm in detail. 15
4. (a) Discuss the significance of Robinson's inference rule. 7½
(b) Explain inference rules in Propositional Calculus. 7½

Unit III

5. (a) Discuss the applications of SLD resolution and SLD tree in AI. 7½
- (b) Write and explain various steps in controlling back tracking. 7½
6. Explain following terms with example with reference to Prolog programming language :
- (a) Clauses
- (b) Predicates
- (c) Cut
- (d) Fail
- (e) Inference engine. 15

Unit IV

7. (a) Discuss Bay's Theorem and its limitations. 7½
- (b) Explain A*Algorithm. 7½
8. Explain in detail the exact inference in Bayesian network. 15