37205

BT–7 / M-19

ARTIFICIAL INTELLIGENCE
Paper–IT – 403 N

Time allowed : 3 hours]   [Maximum marks : 75

Note :- Attempt any *five* questions, selecting at least **one** from each unit.

Unit–I

1. (a) Define production rule. Discuss various conflict strategies in AI.   7½

    (b) Discuss various applications of AI.   7½

2. (a) Explain different types of production system in detail.   7½

    (b) Differentiate Natural & Artificial Intelligence. Explain different types of problems which require AI techniques to be solved.   7½

Unit–II

3. (a) What is the significance of Wang's algorithm? Write various steps involved in Wang's algorithm.   7½

    (b) List various propositions and tautologies used for prepositional logic with example.   7½

4. Illustrate the use of first order logic to represent knowledge. 15

Unit–III

5. (a) Write and explain various steps involving in implementation of back tracking using stack.   7½

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(2)

    (b) What is use of Cut & Fail Predicates in Prolog with example?   7½

6. Differentiate NML I and NML II. Explain reasoning with NML II in detail.   15

Unit–IV

7. Explain the use of planning graph in providing better heuristic estimation with suitable example.   15

8. (a) Differentiate inductive and statistical learning.   7½

    (b) Explain active and passive reinforcement learning in detail.   7½

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