

Total No. of Questions : 8]

SEAT No. :

**P4939**

[Total No. of Pages :2

**[4959]-1091**

**B.E. (E & TC) (Semester - I)  
ARTIFICIAL INTELLIGENCE  
(2012 Pattern) (Elective - II)**

*Time : 2.5 Hours]*

*[Maximum Marks : 70*

*Instructions to the candidates:*

- 1) Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.
- 2) Figures to the right indicates full marks
- 3) Assume suitable data, if necessary.

- Q1)** a) Explain the Forward and Backward chaining with suitable example. [7]
- b) Write a pseudo code for depth limit search method. Explain its merits and demerits. [7]
- c) Give the PEAS descriptor for the following: [6]
- i) Refinery Controller
  - ii) Satellite image analysis system
  - iii) Interactive English Tutor

OR

- Q2)** a) Explain the Bidirectional search strategy along with its merits and demerits. [6]
- b) Define Heuristics. Explain the significance of Heuristic function in informed search with suitable example. [7]
- c) Explain the Unification Algorithm along with a pseudo code. [7]
- Q3)** a) Write a short note on: [10]
- i) Inductive learning.
  - ii) Explanation Based Learning.

**P.T.O.**

- b) List out and explain the different categories of machine learning. [8]

OR

- Q4)** a) Explain learning by decision trees with suitable example. [9]

- b) What do you mean by Ensemble Learning. Explain the ADA-BOOST algorithm with pseudo code. [9]

- Q5)** a) Explain in detail the architecture of artificial neural network. [8]

- b) Explain in detail Instance based learning. [8]

OR

- Q6)** a) What is the difference between expert system and traditional system? Comment on the advantages and disadvantages of expert system. [8]

- b) What are trihedral figures? How waltz's algorithm can be applied to propagate symbolic information? [8]

- Q7)** a) What do you mean by syntactic analysis? Explain it with suitable examples. [8]

- b) What do you mean by grammar induction? Explain it in detail. [8]

OR

- Q8)** a) What is the significance of Pragmatic Interpretation in NLP. [8]

- b) List the characteristics of Information Retrieval process. Explain the process of Evaluation of IR system [8]

