

**Subject : Artificial Intelligence and Applications**

Day : Friday  
Date : 03/06/2016



Time : 10.00 A.M. TO 1.00 P.M.  
Max Marks : 80 Total Pages : 1

**N.B.;**

- 1) Attempt **ANY FIVE** questions from Section – I. and attempt **ANY TWO** questions from Section – II.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answers to both the sections should be written in the **SAME** answer book.

**SECTION - I**

- Q.1** What is heuristic search? Explain different heuristic search techniques. (10)
- Q.2** Explain Breadth first and Depth-first algorithm with example. (10)
- Q.3** Describe probabilistic reasoning in handling uncertainty. (10)
- Q.4** Give alpha – beta pruning algorithm with example. (10)
- Q.5** What is expert system? Explain its architecture. (10)
- Q.6** Explain knowledge representation by scripts. (10)
- Q.7** Write short notes on **any TWO** of the following: (10)
- a) Natural Language Processing
  - b) Fuzzy Logic
  - c) Neural Network

**SECTION - II**

- Q.8** Write a prolog program to
- a) Sum of digits of a number (07)
  - b) Convert lower case character to upper case of vice versa. (08)
- Q.9** Write a prolog program to (07)
- a) Sum of odd and even numbers between 1 to 100. (08)
  - b) To display given number in reverse order.
- Q.10** Write short notes on **any THREE** of the following: (15)
- a) DENDRAL
  - b) Learning by example
  - c) Scripts
  - d) Semantic nets
  - e) Conflict resolution

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