Total No. of Questions :8] *[Total No. of Printed Pages :2*

Roll No .....

MCIT - 204

M.E./M.Tech., II Semester

Examination, June 2016

Soft Computing

Time : Three Hours

Maximum Marks : 70

Note : i) Attempt any five questions.
ii) All questions carry equal marks.

1. a) Explain A* algorithm and compare with AO* algorithm.
   b) What is predicate logic? Explain monotonic reasoning.

2. a) Explain breadth first search algorithm with suitable example.
   b) What is Artificial Neural Network? Explain basic models of Artificial Neural Network.

3. a) Why is the McCulloch-Pitts neuron widely used in logic functions.
   b) Implement AND NOT function using McCulloch-Pitts neuron.

4. a) What is fuzzy logic? Explain history of the development of fuzzy logic.
   b) With a suitable application case study explain a fuzzy logic controller.

5. a) State the decision function for a multi objective decision making.
   b) Explain Data clustering algorithms.

6. a) Explain Job shop scheduling problem using simulated annealing.
   b) Explain types of fuzzy inference system in detail.

7. a) Compare and contrast traditional and genetic algorithm. State the importance of genetic algorithm.
   b) Briefly discuss the various components of genetic algorithm.

8. a) What do you understand by Regression tree in Neuro-fuzzy modeling? How does it differ from the classification tree?
   b) Explain the following with example
      i) How crossover and mutation is carried out
      ii) Reproduction

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