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

Roll No ....

MCIT-204
M.E./M.Tech., II Semester
Examination, June 2017
Soft Computing

Time : Three Hours

Maximum Marks : 70

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

1. a) Explain the concept of planning with state space search using suitable examples.   7
   b) Discuss recursive best first search algorithm.   7

2. a) Illustrate the use of first order logic to represent knowledge.   7
   b) Differentiate between the following :   7
     i) Forward and backward reasoning
     ii) Monotonic and non-monotonic reasoning

3. a) Explain Back propagation network with architecture, algorithm and example.   7
   b) Discuss the concept of supervised and unsupervised learning with the help of on example.   7

4. a) Describe generalized delta rule for training for neural networks. How is training provided to output neurons and hidden layer neurons.   7
   b) Explain Kohonen's self organizing network in detail.   7

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5. a) What is Membership Function? With suitable block diagram explain the working principle of fuzzy inference system.   7
   b) What do you understand by defuzzification? Explain centre of area method of defuzzification.   7

6. a) Discuss about neural controller with its applications.   7
   b) Differentiate between fuzzy sets and crisp sets. Explain the union, intersection, difference and compliment operations on fuzzy sets with an example of each.   7

7. a) Discuss 'Speech recognition' as an application of neuro fuzzy modelling. Also discuss concept formation in machine learning briefly.   7
   b) Explain Simulated Annealing.   7

8. a) Write differences between classical algorithm and genetic algorithm. Explain different types of cross over methods in genetic algorithm with example.   7
   b) Write short note :   7
     i) Reproduction
     ii) Rank space method

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