Roll No ....

MCTA-201

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

Examination, November 2019

Soft Computing

Time : Three Hours

Maximum Marks : 70

Note : i) Attempt any five questions.

ii) All questions carry equal marks.

iii) Assume suitable data if missing.

1. a) Classify the various types of soft computing techniques and mention some application areas for NN. 7

   b) Distinguish between supervised learning and unsupervised learning. 7

2. a) Explain the working of back propagation neural network with neat architecture and flowchart. 7

   b) Write a brief note on Kohonen's Self Organizing networks. 7

3. a) Distinguish between recurrent and non-recurrent networks. 7

   b) Give the characteristics of counter propagation network. 7

4. a) Describe membership function and Fuzzy inference machine. 7

   b) Discuss various fuzzy set operations with appropriate examples. 7

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5. a) Enlist and explain various defuzzification methods. 7

   b) How genetic algorithm is differ from traditional algorithm? Classify the types of coding employed in genetic algorithm? 7

6. a) Mention the role of Fitness function in genetic algorithm and what are the requirements of genetic algorithm? 7

   b) How TSP can be solved using GA? Describe operation performed in different phases using suitable examples. 7

7. a) Write short note on hill climbing. With neat sketch explain problem associated with hill climbing algorithms. 7

   b) Explain Roulette-wheel Selection and Rank Selection with example. 7

8. Write short note on: 14

   i) Sematic network

   ii) NN toolbox MATLAB

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