

MCTA - 201
M.E./M.Tech., II Semester

Examination, June 2013

Soft Computing

Time : Three Hours

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Maximum Marks : 70

Note : 1. Attempt any five questions.

2. All questions carry equal marks.

1. a) How step size affect the learning rate of Neural Network and derive it?
b) Explain why an MLP does not learn if the initial weights and biases are all zeros.
2. a) Explain briefly Kohonen's Self Organizing networks.
b) What do you understand by Fuzzy sets and Membership functions.
3. a) What is Fuzzy Reasoning and Compositional rule of Inference? Explain with example.
b) Prove that the scaled Gaussian function is invariant under the product operator.
4. a) How CART identify structure in ANFIS. Write features also.
b) Differentiate subtractive clustering with Mountain Clustering.

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5. a) Explain Feedback Control System with plant dynamics and Linear Controllers.
b) What is Genetic Algorithm? Write its Applications.
6. a) How Genetic Algorithm relate with Fuzzy Inference System?
b) What are the limitations of Genetic algorithms.
7. a) What are the different selection methods use by Genetic Algorithm.
b) What are the main differences between scripts and frame structures.
8. a) Write different Artificial Intelligence Search Algorithms with comparison. Which one is best?
b) How Semantic Network Related to Syntax Associative Network.

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