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

Roll No

MEIC-201

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

Examination, May 2018

Fuzzy Maths And Application to Controllers

Time : Three Hours

Maximum Marks : 70

Note : i) Attempt any five questions.

ii) All questions carry equal marks.

1. a) Explain the Difference between Fuzzy set theory and classical set theory. Write the operations on fuzzy sets. 7

   b) What are the Linguistic variables explain how defines in fuzzy systems? Explain two inferring procedures. 7

2. a) Explain Defuzzification methods in detail. 7

   b) What do you understand by Fuzzy rule based system explain with example. 7

3. a) Explain rule based representation of conventional TE types of FKBC. 8

   b) Discuss about Sugeno FKBC in detail. 6

4. a) Explain neural network architecture based on their synaptic interconnections. 7

   b) Differentiate single and multiple input neuron network architectures. 7

5. Explain about Back Propagation Neural NETWORKS. 14

6. a) What are the association Learning rules briefly explain? 8

   b) Discuss about self organizing networks. 6

7. a) Prove Demorgan's laws of Fuzzy sets. 7

   b) Derive involution law of Fuzzy sets. 7

8. Explain the following terms in detail (4+3+3+4)

   a) Membership Functions

   b) Perceptrons

   c) Hidden Layers

   d) Fuzzy IF then statements

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