

Roll No. ....

**22157**

**M. Tech. 3rd Sem. (ECE)  
Examination-May, 2015**

**NEURAL NETWORKS AND FUZZY LOGIC**

**Paper : MEEC-601**

**Time : 3 hours**

**Max. Marks : 100**

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Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard will be entertained after the examination.

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**Note :** Attempt any **five** questions. All questions carry equal marks.

1. (a) Discuss the characteristics of Neural networks.

(b) Explain the model of artificial neuron. How is it different from biological neuron ?

2. What do you mean by learning ? Explain its different types.
3. Describe Adaptive Resonance Theory network.
4. Explain the application of neural network to pattern recognition and pattern mapping.
5. (a) What is de-fuzzification ? Explain its different strategies.  
  
(b) How can fuzzy logic be used in ABS.
6. What is fuzzy set ? How is it different from classical set ? Explain various fuzzy set operations.
7. (a) Explain K-mean clustering algorithm.

(b) What do you mean by Radial basis function neural networks ? Explain.

8. (a) What is associate memory ? Explain the working of associate memory.

(b) Explain :

(i) Fuzzy IF-THEN rules

(ii) Linguistics variable

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