

8. Write short note on the following :

(a) Anti breaking System (10)

(b) Fuzzy System Design (10)

Roll No. ....

**22157**

**M.E. 3rd Semester ECE  
Examination- December, 2016**

**NEURAL NET WORKS & FUZZY LOGIC**

**Paper : MEEC-601**

**Time : 3 hours**

**Max. Marks : 100**

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.

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

1. (a) What is Neural Network and give its benefit.

(10)

(b) Explain the terms of cell body, axon, synapse, dendrites and neuron with reference to biological network. (10)

2. (a) Differentiate between supervised and unsupervised learning rule. (10)

(b) Discuss briefly k-means clustering algorithm. (10)

3. (a) Discuss briefly task performed by recurrent back propagation algorithm. (10)

(b) What do you mean by CMAC network and ART network? (10)

4. Discuss the role of associative memory in neural nets. Also discuss different classes of associative memories and working of these. (20)

5. How are pattern recognition and pattern mapping helpful in neural nets? Discuss with example. (20)

6. (a) How is fuzzification different from defuzzification? (10)

(b) State the importance of membership function. (10)

7. Differentiate between the following :

(a) Fuzzy vs Crisp Sets (10)

(b) Fuzzy sets vs Linguistic variables (10)