Roll No. ☐☐☐☐☐☐☐☐☐☐☐☐   Total No. of Pages : 01

Total No. of Questions : 08

M.Tech.(ECE) (2016 Batch)   (Sem.–1)
NEURAL NETWORKS & FUZZY LOGIC
Subject Code : MTEC-104
M.Code : 74149

Time : 3 Hrs.   Max. Marks : 100

INSTRUCTION TO CANDIDATES :
1. **Attempt any FIVE questions out of EIGHT questions.**
2. **Each question carry TWENTY marks.**

1. Explain Recurrent back propagation method along with its limitations.

2. Differentiate clearly between PID, Fuzzy and Fuzzy Neural Control.

3. Explain CMAC Networks & ART networks in detail.

4. Write short notes on :

    a. Various Optimization Techniques.

    b. VLSI implementation of Neural Network.

5. What is Fuzzy database? What type of information can be kept in a fuzzy database?

6. Distinguish between :

    a. Feedforward and feedback Neural Network.

    b. Supervised and Unsupervised Learning.

7. Explain speech recognition system using neural networks.

8. Find final weights of a single layer network after three steps of Hebbian learning with bipolar binary neuron used having initial weight vector w = [3 –1 0.5] needs to be trained using the set of three input vectors as below for an arbitrary choice of learning constant =1. The transposed inputs are :

    X1= [2 –2 1.5] , X2 = [1 –0.5 –2] , X3 = [0 2 –2]

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.