Roll No. | | | | | | | | | | | | |

Total No. of Pages : 01

Total No. of Questions : 08

M.Tech.(ECE) (Sem.–1)

NEURAL NETWORK & FUZZY LOGIC

Subject Code : EC-505

M.Code : 36206

Time : 3 Hrs. Max. Marks : 100

INSTRUCTIONS TO CANDIDATES :

1. **Attempt any FIVE questions out of EIGHT questions.**
2. **Each question carries TWENTY marks.**

1. a) Explain in detail Radial basis function neural network. (10)
   b) Describe the basic learning laws in RBF nets. (10)
2. a) Discuss in detail about knowledge representation and acquisition. (10)
   b) Explain the basic model of neuron in neural networks. Discuss about the characteristics of neural networks. (10)
3. Describe in detail about ART networks. (20)
4. a) Explain how neural network can be used for pattern recognition. (10)
   b) Discuss in detail about associative memories. (10)
5. a) Write a note on Kohenen's feature maps. (10)
   b) Explain competitive learning in detail. (10)
6. Discuss in detail about Antilock Breaking system using fuzzy logic. (20)
7. a) Explain in detail about defuzzification methods. (10)
   b) Distinguish between supervised and unsupervised learning. (10)
8. Write short notes on following :
   a) Reinforcement learning (07)
   b) Linguistic variables (07)
   c) Fuzzy IF-THEN rule (06)

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.