

22675

M.Tech. 3rd Semester (ECE) CBCS Scheme
Examination, December-2017

NEURAL NETWORKS & FUZZY LOGICS

Paper-16 ECE23C1

Time allowed : 3 hours] [Maximum marks : 100

*Note : Q. No. 1 is compulsory. Attempt any one question
from each section.*

1. (a) What do you mean by ANN? 5
- (b) What is Defuzzification? 5
- (c) Explain the process of Pattern Mapping? 5
- (d) What do you mean by ABS? 5

Section-A

2. (a) Explain the model of a neuron in detail. 10
- (b) Write down different characteristics of Neural Networks. 10
3. (a) Explain Topology in detail. 10
- (b) Explain different development stages in principles of Neural Networks. 10

Section-B

4. (a) Explain basic Hop field model in detail. 10
- (b) What do you mean by Reinforcement learning? Explain. 10

22675-P-2-Q-9 (17)

[P.T.O.]

5. (a) Differentiate between supervised and unsupervised learning model. 10
(b) Explain different types of learning. 10

Section-C

6. (a) Explain counter propagation networks in detail. 10
(b) Explain basic learning laws in RBF nets. 10
7. (a) Differentiate between ART and CMAC Networks. 10
(b) Explain radial basis function neural network with an example. 10

Section-D

8. What are different Defuzzification methods ? Explain the most accurate method with the help of an example. 20
9. (a) What do you mean by Fuzzy Logic ? Explain. 10
(b) Explain Fuzzy IF-THEN rules in detail. 10