Code: R7410201

R07

B.Tech IV Year I Semester (R07) Supplementary Examinations, May 2013
NEURAL NETWORKS AND FUZZY LOGIC
(Common to EEE and E.Con.E)

Time: 3 hours

Max. Marks: 80

Answer any FIVE questions
All questions carry equal marks
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1 (a) Explain the functioning of an artificial neuron.
  (b) List the potential applications of ANN.

2 (a) Write explanatory notes on neural dynamics.
  (b) Distinguish between supervised and unsupervised learning strategy.

3 (a) Give the limitation of perceptron model.
  (b) Differentiate between perceptron representation and perceptron training.

4 (a) State Kolmogorov theorem and list few learning difficulties and improvements.
  (b) Discuss local minimum and global minimum.

5 (a) Explain Hebbian learning.
  (b) Explain storage and recall algorithm.

6 (a) Discuss the types of De-fuzzification.
  (b) Mention few properties of fuzzy sets.

7 (a) With neat sketch of Venn diagrams, explain the operation of crisp sets.
  (b) Write short notes on cardinalities.

8 (a) Write the mathematical expression of the membership function and sketch the membership function.
  (b) Explain the process of fault diagnosis using ANN.

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