R13

B.Tech IV Year I Semester (R13) Supplementary Examinations June 2017
SOFT COMPUTING
(Computer Science and Engineering)

Time: 3 hours   Max. Marks: 70

PART – A
(Compulsory Question)
*****

1   Answer the following: (10 X 02 = 20 Marks)
   (a) What is biological neuron?
   (b) What is back propagation?
   (c) What is fuzziness?
   (d) Define fuzzy set.
   (e) What fuzzification.
   (f) What is defuzzification?
   (g) What is fuzzy associative memory?
   (h) What is gene?
   (i) Define rough set.
   (j) What is rule induction?

PART – B
(Answer all five units, 5 X 10 = 50 Marks)

UNIT – I

2   Give ANN architecture and explain Adaline and Madaline network.
OR
3   Explain various back propagations and describe applications of back propagation network.

UNIT – II

4   Explain Hopfield network and Blotzman network and application of these networks.
OR
5   Give different operations on fuzzy sets.
         Take fuzzy sets A = [0.3, 0.5, 0.6, 0.8, 0.9], B = [02, 0.4, 0.65, 0.7, 0.8] and compute fuzzy operations .

UNIT – III

6   Differentiate classical logic with fuzzy logic with all the necessary concepts.
OR
7   Explain fuzzy associative memory rules with multiple antecedents and consequents and give examples.

UNIT – IV

8   Explain fuzzy logic controller and genetic algorithms in fuzzy logic controller design.
OR
9   Explain fuzzy propositions and approximate reasoning.

UNIT – V

10   Match P_1 = 000011110000 P_2 = 111100000000 with crossover and mutation, and give applications of genetic algorithms.
OR
11   Explain decision table and rule induction.

*****