Code: 9A02707 **R09**

B.Tech IV Year I Semester (R09) Regular & Supplementary Examinations December 2015

SOFT COMPUTING TECHNIQUES

(Electrical & Electronics Engineering)

Time: 3 hours Max. Marks: 70

Answer any FIVE questions
All questions carry equal marks

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1 (a) Explain the characteristics of ANN and write the applications of ANN.
(b) What are the basic models of ANN based on connection topology? Explain each of them in detail.

2 Briefly discuss ANN architectures.

3 (a) Describe the ADALINE and radial basis function networks.
(b) What are the limitations of “Perceptron” model? Explain.

4 Explain training algorithms that is applicable to pattern association.

5 (a) Explain the terms:
(i) Fuzzy set.
(ii) Membership function.
(b) Explain about the cardinalities in fuzzy sets.

6 List the various defuzzification techniques. Explain each of them in detail.

7 (a) Describe the basic operators of a genetic algorithm.
(b) Explain about the mutation operator.

8 (a) Explain the fuzzy logic based unit commitment problem.
(b) Explain genetic algorithm based economic load dispatch.

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