

22643

**M.Tech. 2nd Semester (CSE) CBCS Scheme
Examination, May-2017
SOFT COMPUTING
Paper-MTCSE22C1**

Time allowed : 3 hours] [Maximum marks : 100

Note : Question Number 1 is compulsory. Attempt any five questions taking at least one question from each section. All questions carry equal marks.

1. (a) What is multilayer perceptron model ? $4 \times 5 = 20$
(b) How can you generate Fuzzy rule ?
(c) What is Fuzzy rule generation ?
(d) What is Fuzzy Propositions ?

Unit-I

2. (a) Discuss various Mathematical model of neurons in detail. 10
(b) Explain gradient descent algorithm. 10
3. Explain Delta and Back propagation algorithm in detail. 20

Unit-II

4. (a) What are the properties which a fuzzy set A-on R must possess to qualify as a fuzzy number ? 10

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- (b) What is membership function ? Explain with the help of examples. 10
5. What is fuzzy set ? Explain the characteristics of fuzzy set. 20

Unit-III

6. Write short note on :
(a) Fuzzy numbers 10
(b) Lattice of fuzzy numbers. 10
7. Write short note on :
(a) Fuzzy equations 10
(b) Fuzzy Qualifiers. 10

Unit-IV

8. (a) Explain information and uncertainty. 10
(b) Explain Fuzziness of fuzzy sets. 10
9. Explain non-specificity of fuzzy. 20