

Roll No.

23070

**M. Tech. 2nd Semester (Computer Engg.)
Examination – December, 2014**

SOFT COMPUTING

Paper : MTCE-602-A

Time : Three Hours]

[Maximum Marks : 100

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Attempt any *five* questions. All questions carry equal marks.

1. Explain the Hopfield Network in detail with its architecture. 20
2. (a) What do you mean by supervised and unsupervised learning explain ? 10
(b) Explain the mathematical models of Neurons. 10
3. Explain the following : 20
(i) Multilayer perception model

- (ii) Associative memory
4. (i) What is membership function ? Explain it with the help of example. 10
- (ii) Give a brief description about Fuzzy Logic. 10
5. What is Fuzzy Set ? Explain in detail the different operation on Fuzzy Sets with a suitable example. 20
6. (a) Give a brief description about Lattice of Fuzzy Numbers. 10
- (b) What is Linguistic variables ? Explain in detail. 10
7. Explain the following : 20
- (i) Multi valued Logic
- (ii) Fuzzy Propositions
8. Write short notes on : 20
- (i) Fuzziness of Fuzzy Sets,
- (ii) Uncertainty Based Information.
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