

4. Explain the difference in supervised and unsupervised learning. Explain one algorithm related to any type of learning. 10,10

SECTION-C

5. Describe the fuzzy arithmetic and fuzzy if then rules for modelling any real world system. 20
6. What is a neuro fuzzy system ? In which areas neuro fuzzy systems are useful. 10,10

SECTION-D

7. What is probability theory ? Explain the Bayes theorem. 10,10
8. Explain the concept of fuzzy logic and its relationship to probability theory. 20

Exam. Code : 206701
Subject Code : 4786

M.Sc. Computer Science 1st Semester
(Batch 2021-23)

SOFT COMPUTING

Paper : MCS-105

Time Allowed—3 Hours] [Maximum Marks—100

Note :—Attempt **FIVE** questions in all, selecting at least **ONE** question from each section. The **fifth** question may be attempted from any section. All questions carry equal marks.

SECTION-A

1. What is a neural network ? Discuss the working of an artificial neuron. 10,10
2. (a) Examine the role of a perceptron for creating a neural network. 10
- (b) Discuss the back propagation algorithm. 10

SECTION-B

3. Write short notes on :
- (a) Adaptive resonance theory 10
- (b) Bidirectional Associative memory 10