



QP CODE: 25022385



Reg No :

Name :

M.Sc DEGREE (CSS) SPECIAL REAPPEARANCE EXAMINATION, APRIL 2025

Third Semester

M.Sc COMPUTER SCIENCE(Aided)

ELECTIVE - CA820301 - SOFT COMPUTING

2019 ADMISSION ONWARDS

4BD1957F

Time: 3 Hours

Weightage: 30

Part A (Short Answer Questions)

*Answer any **eight** questions.*

*Weight **1** each.*

1. Define Soft Computing.
2. What is connection matrix?
3. What is Adaptive Linear Neuron?
4. List the stages involved in the training of back propogation network.
5. What is BAM?
6. What are fixed weight competitive networks? List various networks.
7. What is non interactive fuzzy set?
8. Define Defuzzification.
9. What are the main steps in developing a fuzzy expert system?
10. Explain basic terminologies in GA?

(8×1=8 weightage)

Part B (Short Essay/Problems)

*Answer any **six** questions.*

*Weight **2** each.*

11. Explain different types of learning methods in Neural Networks.
12. Explain the evolution of neural networks
13. Distinguish tree neural network and neural network.
14. Explain the testing algorithm used in an autoassociative network.
15. In a neural net, how can you form an IIR and FIR filter.





16. What are the different forms of membership functions? Explain any two.
17. Explain fuzzy if-then rules.
18. What is fitness proportionate selection in GA?

(6×2=12 weightage)

Part C (Essay Type Questions)

*Answer any **two** questions.*

Weight 5 each.

19. Write note on artificial neural networks and biological neural networks and differentiate them.
20. Write note on perceptron networks and write perceptron training algorithm.
21. With a diagram, explain Kohonen self organising feature maps
22. Explain the applications of genetic algorithm.

(2×5=10 weightage)

