

Roll No

MCADD-801

M.C.A. (Integrated), VIII Semester

Examination, May 2023

Soft Computing

Time : Three Hours

Maximum Marks : 70

Note: i) Attempt any five questions.

ii) All questions carry equal marks.

1. a) Explain Error back propagation training Algorithm with the help of flowchart.
b) Explain with neat diagram supervised and unsupervised learning in neural network.
2. a) What is bidirectional associative memory network?
b) Explain the architecture of CPN (Counter Propagation Network).
3. a) What is fuzzy inference system?
b) Explain different defuzzification techniques.
4. a) Mention the role of fitness function in Genetic Algorithm.
b) Briefly explain about parallel genetic algorithm.
5. a) What is an empty fuzzy set and define the height of a fuzzy set?
b) Discuss applications of hybrid approaches.

6.
 - a) Discuss the use of fuzzy logic in control of real-world systems with suitable example.
 - b) What is meant by genetic fuzzy rule-based system? Explain in detail.
7.
 - a) What is two-point crossover?
 - b) Which GA operation is computationally most expensive?
8. Write short notes on (any two):
 - a) Binary Hopfield Network
 - b) Kohonen maps
 - c) Delta Learning Rule
 - d) Chaos theory
