

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
MCA - SEMESTER- IV EXAMINATION – SUMMER 2016

Subject Code: 2640009

Date: 04-06-2016

Subject Name: Soft Computing

Time: 10.30a.m. To 01.00p.m.

Total Marks: 70

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

Q.1 [A]	Define the Following question:	07
	(1) Fuzzy Set (2) Crisp Relations (3) Linear Separability (4) Weights (5) Bias (6) Learning Rate (7) Competitive Learning	
Q. 1 [B]	Explain Perception Networks for Artificial Neural Networks.	07
Q. 2 [A]	Explain Radial Basic Function Network.	07
Q. 2 [B]	What is Soft Computing? Discuss different techniques used in Soft Computing and its applications.	07
	OR	
Q. 2 [B]	Explain Architecture & Operation of Fuzzy Logic Control System.	07
Q. 3 [A]	Explain Kohonen Self-Organizing Feature Maps.	07
Q. 3 [B]	Explain Bidirectional Associative Memory.	07
	OR	
Q. 3 [A]	Write short notes on Hopfield Networks.	07
Q. 3 [B]	Difference between fuzzification and defuzzification methods.	07
Q. 4 [A]	What are Back-Propagation Networks? Explain its architecture and Characteristics.	07
Q. 4 [B]	Explain applications of genetic algorithm.	07
	OR	
Q. 4 [A]	Explain Time Delay Neural Networks.	07
Q. 4 [B]	Explain Adaptive Resonance Theory Network.	07
Q. 5 [A]	Explain Fixed Weight Competitive Network.	07
Q. 5 [B]	Explain McCulloch-Pitts Neuron model and write disadvantage of it.	07
	OR	
Q. 5 [A]	Explain Various types of crossover and mutation techniques.	07
Q. 5 [B]	Explain Simulated Annealing Network.	07
