Seat No.:	Enrolment No
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GUJARAT TECHNOLOGICAL UNIVERSITY

ME – SEMESTER – II (New)– EXAMINATION – WINTER-2019 biect Code: 3720217 Date: 19-11-2019

Subject Code: 3720217			Date: 19-11-2019	
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Subject Name: Soft Computing

Time: 02:30 PM TO 05:00 PM	Total Marks: 70
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Instructions:

1. Attempt all questions.

details.

- 2. Make suitable assumptions wherever necessary.
- 3. Figures to the right indicate full marks.

Q.1	(a)	(i)Explain important of Soft computing? (ii)Explain Characteristic of Soft computing with appropriate example.	07
	(b)	(i)Compare Soft computing and Hard Computing. (ii) Explain various tools to solve soft computing problems.	07
Q.2	(a)	What are the different issues that have to be considered when designing a genetic algorithm for intelligent internet search? Explain the definition of crossover and selection of the degree of crossover issues.	07
	(b)	(i) How to express Fuzzy Operation? Explain applications of Fuzzy Operation with example.(ii) Can you Explain elements of Fuzzy system in details.	07
	(b)	OR Explain practical importance of Machine Learning with example.	07
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Q.3	(a)	(i) Why Neural Network is important? Explain the structure of Neuron. (ii) Compare Supervised and Unsupervised Learning.	07
	(b)	Explain practical importance of Adaptive Resonance Theory networks with example.	07
		OR	
Q.3	(a)	Explain following terms with example.	07
	(b)	i) Logic Inference ii) data structures iii) ANN Mention the role of fitness function in GA and what are the Parameters of GA?	07
Q.4	(a)	How to use Machine Learning Approach to Knowledge Acquisition? Explain with example.	07
	(b)	State the differences between traditional algorithm and genetic algorithm. OR	07
Q.4	(a)	Write a short note on Learning methods in Neural Network.	07
	(b)	Explain the issues of Back Propagation network? How many type of operation performed on Back Propagation network? Explain suitable examples.	07
Q.5	(a)	Write a short note on Fuzzy Expert Systems and Fuzzy Decision Making.	07
•	(b)	Differentiate neural network toolbox and fuzzy logic toolbox.	07
		OR	
Q.5	(a)	(i)How to express Arrays and array operations in Python? (ii)Explain practical importance Arrays in Python.	07
	(b)	How can you use neural networks and MATLAB in Soft Computing? Explain in	07
	(\mathbf{D})	110 w can you ase near a networks and write his soft computing. Explain in	U/
