M.SC. (Computer Science) (CBCS Pattern) Third Semester **PSCST10 - Soft Computing Techniques Paper-II**

P. Pages : 2 Time : Three Hours		2 ree Hours $x^3 x^3 x^6 x$	GUG/W/18/11233 Max. Marks : 80	
	Note	 es: 1. All questions are compulsory and carry equal marks. 2. Draw neat & labelled diagram wherever necessary. 3. Avoid vague answers & write answers relevant & specific to ques 	tions.	
		Either		
1.	a)	Discuss the various types of control strategies in detail.	8	
	b)	Define AI. Explain A* algorithm.	8	
		OR		
	c)	Explain predicate logic. Also explain monotonic and non-monotonic reason	ning. 8	
	d)	What do you mean by computing ? Discuss the applications of soft comput	ing. 8	
		Either		
2.	a)	What is MLP ? Explain different activation function used by MLP.	8	
	b)	What is EBPA ? Explain the characteristics & application of EBPA.	8	
		OR		
	c)	Explain perceptron training algorithm in detail.	8	
	d)	Explain error back propagation algorithms in details.	8	
		Either		
3.	a)	What is fuzzy propositions ? Explain the formation & decompositions of fu propositions in details.	12ZY 8	
	b)	What is membership functions? Explain the features of membership function	ons. 8	
		OR		
	c)	Differentiate between crisp set and fuzzy set. Also explain the application of	of fuzzy logic. 8	
	d)	Write a note on :	8	
		i) Fuzzy reasoning.		
		ii) Fuzzy decision making.		

Either

- **4.** a) Explain inversion and deletion in detail.
 - b) Write a note on :

5.

- i) Mutation operator.
- ii) Bitwise operator.

OR

8

8

c)	Explain various traditional methods of Genetic algorithm.		
d)	Write a note on :		
	i)	Inheritance operators.	
	ii)	Bitwise operators.	
	Atten	npt all the questions.	
	a)	Write a note on Hill Climbing.	4
	b)	What are the advantages of neural network over conventional computers ?	4
	c)	Explain the aggression of fuzzy rules in details.	4
	d)	Write a note on cross over.	4
