M.Sc.- II (Computer Science) (CBCS Pattern) Semester-III

PSCST10 - Paper-II - Soft Computing Techniques

P. Pages : 2 **GUG/S/25/11233**

Time : Three Hours * 1 3 0 2 * Max. Marks : 80

Notes : 1. All questions are compulsory and carry equal marks.
2. Draw neat and labelled diagram wherever necessary.
3. Avoid vague answers and write the answer specific to questions only.

1. Either:

a) Explain Ao^* algorithm in detail. **8**

b) Explain various issues related to knowledge represent. **8**

OR

c) Define soft computing. Explain various types of soft computing. **8**

d) Write and explain breadth first search. **8**

2. Either:

a) Write the characteristics and application of EBPA. **8**

b) Explain the taxonomy of neural network. **8**

OR

c) Differentiate between ANN and human brain. **8**

d) Write the derivations of BBPA. **8**

3. Either:

a) Explain the detail fuzzy an crisp relation. **8**

b) How could you calculate fuzzy interface system? Explain with one of its example. **8**

OR

c) What is fuzzy set theory? Differentiate between fuzzy set verses crisp set. **8**

d) Explain in detail fuzzy decision making. **8**

4. Either:

a) What is genetic modeling? Explain its basic concept in detail. **8**

b) Explain working principle of Genetic algorithm. **8**

OR

c) What is convergence of GA? Explain difference and similarity between GA. **8**

d) Discuss any four operator of genetic algorithm. **8**

5. Attempt all the questions.

a) Explain the concept of underestimating and overestimating in A^* algorithm. **4**

b) Write a short note on linear separability. **4**

c) Explain crisp logic. **4**

d) Write a short note on inversion and deletion. **4**

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