

M.Sc.(Computer Science) - II (CBCS Pattern) Semester - III
PSCST10 - Paper-II : Soft Computing Techniques

P. Pages : 2

Time : Three Hours



GUG/S/23/11233

Max. Marks : 80

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

Either:

1. a) What is soft computing? Differentiate between soft computing verses Hard computing. **8**
b) What is NLP? Explain the weak and strong slot and filler structures with example. **8**

OR

- c) Explain AO* algorithm in detail. **8**
d) Explain in detail Breadth first search. **8**

Either:

2. a) Explain Biological neuron as well as structure and function of single neuron. **8**
b) Write a note on: **8**
i) ADALINE
ii) MADALINE

OR

- c) What is MLP? Explain its different activation functions. **8**
d) What is ANN? Explain single layer network. **8**

Either:

3. a) Discuss in brief about fuzzy interface system. **8**
b) What is Fuzzy set theory? Differentiate between fuzzy set verses crisp set. **8**

OR

- c) Explain the features of membership functions in detail. **8**
d) Write a note on Decomposition & Aggregation of Fuzzy Rule. **8**

Either:

4. a) What is genetic Algorithm? Explain working principle of Genetic Algorithm. 8
b) Explain Generation cycle in detail. 8

OR

- c) What are the differences and similarities between G. A.? Explain. 8
d) What is genetic modelling? Explain inheritance operators in detail. 8
5. Attempt all the questions.
- a) Write a short note on production system. 4
b) Explain in brief linear seperability. 4
c) Write a note on crisp logic. 4
d) Explain Genetic operator in detail. 4
