3603

ELECTIVE - II
Artificial Intelligence & Soft Computing
(1125)

P. Pages : 2

Time : Three Hours   **Max. Marks : 100**

Instructions to Candidates :
1. Do not write anything on question paper except Seat No.
2. Answer sheet should be written with blue ink only. Graph or diagram should be drawn with the same pen being used for writing paper or black HB pencil.
3. Students should note, no supplement will be provided.
4. Assume suitable data if necessary.
5. Solve **any five** questions.

1. a) Explain operations on fuzzy set with suitable example.   **10**

   b) Explain classic set theory and fuzzy set theory and compare them.   **10**

2. a) Gives the characteristics of soft computing ?   **10**

   b) What is image processing ? Can we use fuzzy logic for image processing ?   **10**

3. a) Explain architecture of back Propagation Network.   **10**

   b) What is criteria for selection of various parameters in BPN.   **10**

4. a) Explain Bays decision theory for Classifier.   **10**

   b) Explain Linear Classifier.   **10**

5. a) What is the fundamental theory of Genetic Algorithms.   **10**

   b) What is need of optimization ? How linear programming is applied to solve optimization problem.   **10**

6. a) What do you mean by Pattern classification ? How Radial Basis function is usefully for it explains ? **10**

b) Explain Support Vector Machine in details. **10**

7. a) Explain context dependent classification. **10**

b) Explain taxonomy of Neural network. **10**

8. Write note on : **20**
a) ANN
b) Aggregation of fuzzy rules.
c) Bayesian Classification.
d) Linear Discriminate Function.

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