

Seat  
No.

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मुख - 010

**ELECTIVE - II**

**Artificial Intelligence & Soft Computing  
(1125)**

P. Pages : 1

Time : Three Hours

Max. Marks : 100

Instructions to Candidates :

1. Do not write anything on question paper except Seat No.
2. Answersheet 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) Explain Fuzzy Tolerance and Equivalence Relation. **10**  
b) Explain Back Propagation Learning Rules. **10**
3. a) Explain Bayesian Estimation with class conditional densities. **10**  
b) Explain Support Vector Machine in details. **10**
4. a) Explain Linear Classifier. **10**  
b) Write a note on Artificial Neural Network. **10**
5. a) Explain the architecture of Radial Basis Function Network. **10**  
b) Gives the characteristics of Neural network. **10**
6. a) What do you mean by Pattern classification ? How Radial Basis function is usefully for it explains ? **10**  
b) Explain the pattern classification and recognition process in detail. **10**
7. a) What is need of Optimization ? How linear programming is applied to solve optimization problem. **10**  
b) What is Image processing ? Can we use fuzzy logic for image processing ? **10**
8. a) Explain If - Then rule in Fuzzy. **10**  
b) Write a short note on Linear Discriminate Function. **10**

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