

(5)

Paper Code : DSE 3-E3

(Soft Computing)

Group - A

1. Answer any *six* questions :

2×6=12

- (a) What is role of bias in ANN?
- (b) What is the concept of Hebbian learning?
- (c) What is supervised learning?
- (d) If A and B are two fuzzy sets with membership functions $\mu_A(x) = \{0.6, 0.5, 0.1, 0.7, 0.8\}$
 $\mu_B(x) = \{0.9, 0.2, 0.6, 0.8, 0.5\}$.

Then find the value of Complement of $\mu_{(A \cup B)}(x)$.

- (e) What is delta rule?
- (f) What is perceptron?
- (h) Write advantages of fuzzy logic control.

Group - B

Answer any *two* questions.

10×2=20

- 2. (a) Explain Adaline networks with diagram.
- (b) Design a MLP to implement XOR function.

5+5=10

P.T.O.

(6)

4. (a) Explain Centroid method with an example.
 - (b) Explain Boltzman learning method. $5+5=10$
 5. (a) Explain Adaptive Fuzzy Controller.
 - (b) Explain Mamdani Fuzzy Models. $5+5=10$
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