

B.E. Seventh Semester (Elect. Engg., (E & P), Ele. And Electro., Ele & Power, Ele. Energy) (CGS)
10464 : Elective - I : Artificial Intelligence : 7 EE 05 / 7 EP 05 / 7 EL 05

P. Pages : 2

Time : Three Hours



AU - 2909

Max. Marks : 80

- Notes :
1. Due credit will be given to neatness and adequate Dimensions.
 2. Assume suitable data wherever necessary.
 3. Illustrate your answer necessary with the help of neat sketches.

SECTION - A

1. a) Describe the biological neuron with the function of its part. 7
- b) Discuss supervised and unsupervised learning in brief. 7

OR

2. a) Discuss various types of Neural Network Architecture. 7
- b) What is transfer function? Explain different types of transfer function in brief. 7
3. a) Discuss the linear separability as a limitation of single layer perceptron with suitable example? 7
- b) Explain the application algorithm of perceptron learning rule. 6

OR

4. Explain Feed forward Neural Network and Derive the expression for weight changes using back propagation learning algorithm. 13
5. a) Explain counter propagation network in detail? 6
- b) What is unsupervised learning? Explain winner take all learning rule? 7

OR

6. a) Discuss in detail the Kohonen's self-organizing maps. 7
- b) Explain Hopfield neural network in detail. 6

SECTION - B

7. a) Explain fuzzy set. Also explain how it is different from crisp set. 6
- b) Discuss the properties of fuzzy set and explain why law of excluded middle is not true for fuzzy set. 7

OR

8. a) Discuss operations on fuzzy set. 7
b) What is fuzzy relation? Discuss the properties of fuzzy relation. 6
9. a) What is membership function? Discuss different types of membership functions? 7
b) What is Defuzzification? Explain the methods of defuzzification in brief? 7

OR

10. Explain any one Graphical Technique of Inference? 14
11. a) Explain the similarities and differences between GA and traditional optimization methods? 7
b) Explain with neat diagram the Roulette-wheel method of selection. 6

OR

12. Explain the following in context to Genetic Algorithm. 13
1) Fitness function
2) Reproduction
3) Crossover
4) Mutation

http://www.sgbauonline.com

Whatsapp @ 9300930012

Your old paper & get 10/-

पुराने पेपर्स भेजे और 10 रुपये पायें,

Paytm or Google Pay से