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Total No. of Pages : 01

Total No. of Questions : 08

PHD (CSE)  
SOFT COMPUTING

Time : 3 Hrs.

Max. Marks : 100

INSTRUCTIONS TO CANDIDATES :

1. Attempt any FIVE questions out of EIGHT questions.
2. Each question carries TWENTY marks.

Q1 Write a detailed note on following :

a) Perceptron Networks (10)

b) Back Propagation Networks (10)

Q2 a) What are artificial neural networks? What are their characteristics? Distinguish between artificial neuron & biological neuron? (12)

b) What are activation functions? Explain various activation functions used in ANN?(8)

Q3 Write a detailed note on Classical Relations and Fuzzy Relations. (20)

Q4 Write a detailed note on following in reference to fuzzy logic :

a) Membership Functions. (10)

b) Fuzzy Rule base and approximate reasoning. (10)

Q5 What are Genetic Algorithms? Explain the working principle of Genetic Algorithm. Write the advantages and limitations of Genetic Algorithms. Also compare Genetic algorithms with other Traditional methods. (20)

Q6 Write a detailed note on following terms in reference to genetic algorithms :

a) GA and Search Space (10)

b) Operators in GA (10)

Q7 Write a detailed note on Genetic Neuro Hybrid Systems. (20)

Q8 Explain the fuzzy genetic hybrid systems in detail. (20)