

Roll No.

Total Pages : 2

BT-5/D-22

45266

ARTIFICIAL NEURAL NETWORKS

Paper-PC-CS-AIDS-S-311A

Time : Three Hours]

[Maximum Marks : 75

Note : Attempt *five* questions in all, selecting atleast *one* question from each unit. All questions carry equal marks.

UNIT-I

1. (a) What do you mean by biological neurons? What are the issues on which biological networks proves to be superior than AI networks? (7)
(b) What is the role of activation function in neural networks? List down the names of some popular Activation Functions used in Neural Networks. (8)
2. Explain various Optimization Algorithms for Training Neural Network with its advantages and disadvantages. (15)

UNIT-II

3. (a) How the feedforward neural network works ? (7)
(b) Explain the backpropagation algorithm. How it train the ANN? (8)

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4. (a) What is RBFN? What are its advantages over MLP with error backpropagation learning? (8)
(b) Explain approximation properties of RBNF. (7)

UNIT-III

5. What is pattern association in associative memory network? Explain Hebb and Delta rule with its implementation. (15)
6. (a) Write retrieve algorithm for recurrent associative memory. (7)
(b) Discuss the architecture of Bi-directional associative memory in detail. (8)

UNIT-IV

7. Explain Perceptron neural network algorithm with its implementation in Python. (15)
8. Write short notes on :
(a) Adaline Network.
(b) Recall Neural Network.
(c) BPN. (15)
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