Total No. of Questions : 4]

PB-112

SEAT No. :

[Total No. of Page : 1

[Max. Marks : 30

[6269]-326

T.E. (Artificial Intelligence and Data Science) (Insem.) ARTIFICIAL NEURAL NETWORK (2019 Pattern) (Semester - II) (317531)

Time : 1 Hour]

Instructions to the condidates:

- 1) Solve questions Q.1 or Q.2, Q.3 or Q.4.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Figures to the right indicate full marks.
- 4) Assume suitable data if necessary.

Q1) a) What is the role of activation function in neural network? Explain bipolar Sigmoid function in detail. [5]

- b) Why is ReLU the most commonly used Activation Function? [5]
- c) Explain architecture of Artificial Neural Network with a neat diagram.[5]
- Q2) a) Draw the structure of the biological neuron and explain working of the same in brief.[5]
 - b) Write an algorithm of ADALINE and focus on its upper bound with largest Eigen Value of its correlation matrix. [10]
- Q3) a) What is Error Correction and how to minimize these errors? [5]
 - b) Explain the architecture of Multilayered neural network. [5]
 - c) Define learning and memory. Explain learning algorithms in details. [5]

OR

- Q4) a) What is the difference between Forward propagation and Backward Propagation in Neural Networks? [5]
 - b) Explain the different types of Gradient Descent in detail. [5]
 - c) Write down Perceptron Learning Algorithm for OR function along with calculation of each input vector. [5]