Total No. of Questions : 4]

Instructions to the candidates:

**PA-10122** 

## [6009]- 426

SEAT No. :

[Total No. of Pages : 1

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

Time : 1 Hour]

[Max. Marks : 30

[5]

[5]

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

*Q1*) a) What is a neural network activation function? State its Types? [5]

- b) Explain architecture of Artificial Neural Network with a neat diagram.[5]
- c) Explain Mc-Culloch & Pitts model with an example. [5]
- *Q2*) a) What are the main differences among the three models of artificial neuron, namely, McCulloch-Pitts, Perceptron and Adaline? [5]
  - b) Explain the structure and working of Biological Neural Network? [5]
  - c) Differentiate between Biological Neural Network and Artificial Neural Network. [5]
- Q3) a) Explain Perceptron Learning Algorithm with an example.
  - b) Explain the architecture of Multilayered neural network.
  - c) Write and explain the steps of Back Propagation Learning algorithm [5]

Q4) a) Draw the architecture of Back Propagation Network and explain in detail. [5]

- b) Differentiate between Feed forward and Feedback neural network. [5]
- c) What is Error Correction and how to minimize these errors? [5]

