### **Tutorial Unit 3**

#### M Sc IT II Semester

## **PS02CINT33: Artificial Intelligence**

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### **Short Questions/Objective Questions**

- 1. What is artificial neuron?
- 2. List characteristic of an artificial neural network.
- 3. What is an activation/transfer/ processing function?
- 4. Give an example of activation function. (weighted sum, weighted avg, sigmod, etc.)
- 5. Name models of artificial neural network.
- 6. What is parallel relaxation?
- 7. Give structure of multiplayer perceptron.
- 8. List two main phases of learning in a typical multiplayer perceptron.
- 9. What is forward pass?
- 10. What is backward pass?
- 11. Name learning algorithm of multiplayer perceptron.
- 12. State true or false: Creditability of a multiplayer perceptron depends on its training data set.
- 13. State true or false: Learning from training data sets in presence of a control mechanism is called supervised learning.
- 14. State true or false: ANN is used for classification.
- 15. What is the advantage of an ANN?
- 16. Give a limitation of ANN.
- 17. Write an application of single perceptron.
- 18. Write an application of multiplayer perceptron.

# **Big Questions**

- 19. Give an example of single perceptron of your choice by giving its diagram.
- 20. Explain Hopfield model in detail by giving its diagram and learning algorithm.
- 21. Design a multi layer perceptron for sales prediction.
- 22. Design a multi layer perceptron for selection of a job.
- 23. Design a multi layer perceptron for selection of a course.
- 24. Design a multi layer perceptron for selection of readymade garments.
- 25. Explain design heuristic in a multi layer neural network.
- 26. Explain learning in a multi layer neural network.