

6. What is synchronous update in hopfield model?
- (a) all units are updated simultaneously
 - (b) a unit is selected at random and its new state is computed
 - (c) a predefined unit is selected and its new state is computed
 - (d) none of the mentioned

In self organizing network, how is layer connected to output layer?

- (a) some are connected
- (b) all are one to one connected
- (c) each input unit is connected to each output unit
- (d) none of the mentioned

Pattern recall takes more time for?

- (a) MLFNN
- (b) Basis function
- (c) Equal for both MLFNN and basis function
- (d) None of the mentioned

Multilayer Perceptron (MLP), Convolutional Neural Network (CNN) and Recurrent Neural Networks (RNN) are used for

- (a) knowledge extraction
- (b) healthcare
- (c) weather forecasting
- (d) none of the above

10. What are the major components of the intrusion detection system?

- (a) Analysis Engine
- (b) Event provider
- (c) Alert Database
- (d) All of the mentioned

PART B — (5 × 5 = 25 marks)

Answer ALL questions by choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Write note on artificial neural network.

Or

- (b) Write note on any two artificial network terminologies.

12. (a) Derive Hebbian and perceptron-learning rule.

Or

- (b) Explain about multilayer perceptron.

13. (a) Explain Continuous Hopfield net.

Or

- (b) Write note on local minima and Global minima.

14. (a) What is counter propagation network?

Or

(b) Explain the application procedure for full CPN.

15. (a) Write note on protein folding.

Or

(b) Describe about forecasting the application of neural network.

PART C — (5 × 8 = 40 marks)

Answer ALL questions by choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Describe biological neural network.

Or

(b) Explain in detail about network architecture of basic building blocks of artificial neural networks.

17. (a) Write in detail about Mc-Culloch-Pits neuron-model

Or

(b) Illustrate single layer perceptron.

18. (a) Write about Discrete Hopfield network training algorithm.

Or

(b) Explain Back propagation network.

19. (a) Elaborate Kohonen self-organizing feature maps.

Or

(b) Express about Forward only propagation network.

20. (a) Explain about clinical diagnosis in health care application of neural network.

Or

(b) Describe about intrusion-detection algorithm.