

15. Distinguish b/w Single layer & Multilayer FF Network.

14. What do you mean by feed forward network.

12. What are the main features of RNN? Discuss with a diagram.

13. Explain about any Unsupervised Neural Network.

### Questions:

1. What do you mean by ANN? Give comparison a table of ANN & Biological Neural Network. [1+4]

2. Explain in detail about biological neuron with diagrams.

3. Write a short note on single level perceptron model [5M]

4. Write a short note on multi level perceptron model [5M]

5. What do you mean by activation function?

Explain any one activation function [5M]

6. Let Suppose we have a neural network of single hidden layer, single output layer.

Hidden layer having 3 nodes. Output layer having single node. If  $W = [1, 2, 3]$  and  $X = [5, 7, 9]$ . Calculate the output by taking activation function sigmoid and bias = 3.

7. Explain about SGD in Backpropagation algorithm.
8. Explain about Batch Optimization in BP algorithm.
9. Explain about Mini Batch Optimization in BP algorithm.
10. Comparison table of <sup>inp</sup> 7, 8, 9.
11. Explain CNN with a diagram.

## Questions:

1. What do you mean by learning rules in multilayer perceptron? Explain Delta Learning rule.
2. Create logical AND gate using perceptron learning rule.
3. Explain Hebs learning rule using an example.
4. What do you mean by back propagation method? What are the advantages of Back propagation method over delta learning rule.
5. Explain out star learning rule using an example.
6. Give a comparative study between single layer and multi layer neural network.
7. What are the algorithms used for pattern association? Explain each of them.
8. Explain auto associative memory network with an example.
9. Explain Hetero associative memory network with an example.
10. What is a associative memory network. Give a comparative study of all types of associative memory network.