1. What is the function of a summation junction of a neuron? What is threshold activation function?
2. What is a step function? What is the difference of step function with threshold function?
3. Explain the McCulloch–Pitts model of neuron.
4. Explain the ADALINE network model.
5. What is the constraint of a simple perceptron? Why it may fail with a real-world data set?
6. What is linearly inseparable problem? What is the role of the hidden layer?
7. Explain XOR problem in case of a simple perceptron.
8. Design a multi-layer perceptron to implement A XOR B.
9. Explain the single-layer feed forward architecture of ANN.
10. Explain the competitive network architecture of ANN.
11. Consider a multi-layer feed forward neural network. Enumerate and explain steps in the backpropagation algorithm used to train the network.
12. What are the advantages and disadvantages of neural networks?
13. Write short notes on any two of the following:
    * 1. Biological neuron
      2. ReLU function
      3. Single-layer feed forward ANN
      4. Gradient descent
      5. Recurrent networks