

DEEP LEARNING

1. Which of the following can approximate any function universally (i.e. Universal approximators)?
B) Neural Networks
2. In which of the following domains we cannot use neural networks?
D) None of the above
3. Rearrange the following steps of a gradient descent algorithm in correct order of their occurrence?
 - i. Initialize random weight and bias
 - ii. Repeat the process until you find the best weights of network
 - iii. Change weights and biases for each neuron to reduce the error
 - iv. Calculate error distances between the actual and the predicted value
 - v. Pass an input through the network and get values from output layerChoose the correct option:

C) i – v – iv – iii – ii
4. What is the full form of RNN?
A) Recurrent Neural Network
5. What is plasticity in neural networks?
A) input pattern keeps on changing
6. What is stability plasticity dilemma?
C) dynamic inputs & categorization can't be handled
7. Read the following statements:
Statement 1: It is possible to train a network well by initializing all the weights as 0
Statement 2: It is possible to train a network well by initializing biases as 0
Which of the statements given above is true, Choose the correct option?

B) Statement 2 is true while statement 1 is false
8. Which of the following architecture has feedback connections?
A) Recurrent Neural network
9. In training a neural network, you notice that the loss does not decrease in the few starting epochs. The reason behind it could be
A) Learning Rate is low
B) Regularisation parameter is high
D) Stuck at local minima

10. Which of the following function(s) can be used to impart non – linearity in a neural network?

B) Rectified Linear Unit

11. What is Deep Learning?

Deep Learning is a machine learning method. It allows us to train an AI to predict outputs, given a set of inputs. Both supervised and unsupervised learning can be used to train the AI.

12. What is reinforcement learning?

Reinforcement Learning is defined as a Machine Learning method that is concerned with how software agents should take actions in an environment. Reinforcement Learning is a part of the deep learning method that helps you to maximize some portion of the cumulative reward. This neural network learning method helps you to learn how to attain a complex objective or maximize a specific dimension over many steps.

13. What Are the Differences Between Machine Learning and Deep Learning?

- Machine learning uses algorithms to parse data, learn from that data, and make informed decisions based on what it has learned
- Deep learning structures algorithms in layers to create an "artificial neural network" that can learn and make intelligent decisions on its own
- Deep learning is a subfield of machine learning. While both fall under the broad category of artificial intelligence, deep learning is what powers the most human-like artificial intelligence

14. What is a perceptron?

A perceptron is a simple model of a biological neuron in an artificial neural network. The perceptron algorithm was designed to classify visual inputs, categorizing subjects into one of two types and separating groups with a line. Classification is an important part of machine learning and image processing. Each perceptron sends multiple signals, one signal going to each perceptron in the next layer. For each signal, the perceptron uses different weights.

15. What's the difference between AI and ML?

If AI is when a computer can carry out a set of tasks based on instruction, ML is a machine's ability to ingest, parse, and learn from that data itself in order to become more accurate or precise about accomplishing that task.