1. Which of the following can approximate any function universally (i.e. universal approximators)?

D) All of the above

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 layer

Choose 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 ; D) Sigmoid Function

11. What is Deep Learning?

* Deep learning is an artificial intelligence (AI) function that imitates the workings of the human brain in processing data and creating patterns for use in decision making.
* Deep learning is a subset of machine learning in artificial intelligence that has networks capable of learning from unsupervised data that is unstructured or unlabeled.

12. What is reinforcement learning?

* Reinforcement learning is an area of machine learning concerned with how software agents ought to take actions in an environment in order to maximize the notion of cumulative reward.
* Reinforcement learning is one of three basic machine learning paradigms, alongside supervised learning and unsupervised learning.

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

* The main difference between deep learning and machine learning is due to the way data is presented in the system. Machine learning algorithms almost always require structured data, while deep learning networks rely on layers of ANN (artificial neural networks).
* Machine learning algorithms are designed to “learn” to act by understanding labeled data and then use it to produce new results with more datasets. However, when the result is incorrect, there is a need to “teach them”.Deep learning networks do not require human intervention, as multilevel layers in neural networks place data in a hierarchy of different concepts, which ultimately learn from their own mistakes.

14. What is a perceptron?

* A Perceptron is an algorithm used for supervised learning of binary classifiers. Binary classifiers decide whether an input, usually represented by a series of vectors, belongs to a specific class.
* It is a single-layer neural network that consists of four main parts including input values, weights and bias, net sum, and an activation function.

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

* Artificial intelligence is a technology which enables a machine to simulate human behavior.Machine learning is a subset of AI which allows a machine to automatically learn from past data without programming explicitly.
* The goal of AI is to make a smart computer system like humans to solve complex problems.The goal of ML is to allow machines to learn from data so that they can give accurate output.