

WORKSHEET-1

DEEP LEARNING

Q1 to Q8 are MCQs with only one correct answer. Choose the correct option.

1. Which of the following can approximate any function universally (i.e. universal approximators)?
A) Boosted Decision Trees
B) Neural Networks
C) Kernel SVM
D) All of the above
2. In which of the following domains we cannot use neural networks?
A) Image Processing
B) Speech Processing
C) Fraud Detection
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:
A) iv – i – iii – v – ii
B) v – i – iii – iv – ii
C) i – v – iv – iii – ii
D) i – v – iii – iv – ii
4. What is the full form of RNN?
A) Recurrent Neural Network
B) Recursive Neural Network
C) Redundant Neural Network
D) Resurrection Neural Network
5. What is plasticity in neural networks?
A) input pattern keeps on changing
B) input pattern has become static
C) output pattern keeps on changing
D) output is static
6. What is stability plasticity dilemma?
A) system can neither be stable nor plastic
B) static inputs & categorization can't be handled
C) dynamic inputs & categorization can't be handled
D) none of the above
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?
A) Statement 1 is true while Statement 2 is false
B) Statement 2 is true while statement 1 is false
C) Both statements are true
D) Both statements are false
8. Which of the following architecture has feedback connections?
A) Recurrent Neural network
B) Convolutional Neural Network
C) Restricted Boltzmann Machine
D) simple Artificial Neural Network

Q9 and Q10 are MCQs with one or more correct answers. Choose all the correct options.

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
C) Regularisation parameter is low
D) Stuck at local minima
10. Which of the following function(s) can be used to impart non – linearity in a neural network?
A) Stochastic Gradient Descent
B) Rectified Linear Unit
C) Convolution Function
D) Sigmoid Function

Q11 to Q15 are subjective answer type question. Answer them briefly.

11. What is Deep Learning?
12. What is reinforcement learning?
13. What Are the Differences Between Machine Learning and Deep Learning?

14. What is a perceptron?
15. What's the difference between AI and ML?