DEEP LEARNING WORKSHEET-3 (JAY KAPURIYA – DATA TRAINED)

1)B

2)C

3)B

4)A

5)A

6)B

7)A

8)C

9)B,C

10)B,C

11) Neural network without activation function is became simple linear regression, which does not allow any non-linearity within it.

12) In the forward propagation, we check what the neural network predicts for the first training example with initial weights and bias and in backpropagation we update the weight such that our loss function get minimize.

13) Main difference in Stochastic, Batch, and Mini-batch is, In Stochastic weight updating take place after pass of each data point through network, In case of Batch weight updating take place after pass of all data i.e. epoch through network, Where in Mini-Batch epoch divided into small parts called batch and weight updating take place after pass of each batch.

14) Benefits of Mini-batch Gradient Descent are it reduce training time, easily fits in the memory, it is computationally efficient, if stuck in local minimums, some noisy steps can lead the way out of them, average of the training samples produces stable error gradients and convergence.

15) Transfer learning is a machine learning method where a model developed for a task is reused as the starting point for a model on a second task. It is a popular approach in deep learning where pre-trained models are used as the starting point on computer vision and natural language processing tasks given the vast compute and time resources required to develop neural network models on these problems and from the huge jumps in skill that they provide on related problems.