NN RECAP

The output of a neural network is calculated during:

A) Forward propagation
B) Backpropagation
C) Weight initialization
D) Loss function evaluation

If weights in a neural network are initialized to zero, it:

A) Speeds up training
B) Leads to symmetry in updates and prevents learning
C) Reduces overfitting
D) Improves the effectiveness of activation functions

How Improves the effectiveness of activation functions

A)Measure the model's performance by comparing predictions to true values
B) Initialize the weights of the network
C)Update the input features for better learning
D) Determine the size of the neural network

What is the main reason behind using activation functions?

 A) To add dependencies

B) To break linearity

 C) To add linearity

D) To break dependencies

Which of the following represents a batch of size 32 of 16 pixels by 16 pixels grayscale images?

A) (32, 1, 16, 16)

B) (1, 32. 16, 16)

C) (1, 16, 32, 16)

D) (1, 16, 16, 32)

Suppose the value of z is a negative number. What will be the output of the relu activation function? i.e what will be the value of $relu(z)$?

A) Theabsolute value of z

B) Thesame value of z

C) Zero

D) Error as relu activation function does not take negative input

The following are hyperparameters EXCEPT:

A) Epochs
B) Hidden Units
C) Learning Rate
D) Loss Function

A neural network has 2 input nodes, 3 hidden nodes, and 2 output nodes. How many learnable parameters are there?
 A) 12
B) 10
C)17
D) 16

Gradient descent optimizes the loss function by increasing its value :

True
False

A neural network with no activation functions behaves like a linear model:

True

False

GOOD LUCK