Quiz-2

Due Sep 5 at 23:59   **Points** 5   **Questions** 10   **Available** Sep 4 at 19:00 - Sep 5 at 23:59 1 day
Time Limit 30 Minutes

Instructions

1) The quiz will be enabled for 24 hours

2) Quiz will have 10 questions in total

3) Students will have one attempt

4) Quiz duration will be for 30 Minutes

Attempt History

	Attempt	Time	Score
LATEST	**Attempt 1**	9 minutes	5 out of 5

⚠ Correct answers will be available on Sep 6 at 0:00.

Score for this quiz: **5** out of 5
Submitted Sep 5 at 10:43
This attempt took 9 minutes.

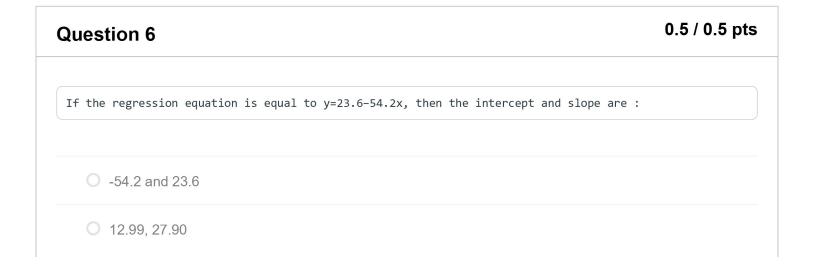|	
Question 1	**0.5 / 0.5 pts**

A neuron with 3 inputs has the weight vector [0.6 -0.1 0.1] and a bias θ = 0.
If the input vector is X = [0.2 0.4 0.2] then the total input to the neuron is:

○ 0.015

○ 0

○ 1

◉ 0.1

Question 2　　　　　　　　　　　　　　　　　　　　　　0.5 / 0.5 pts

In Neural networks the training time is independent of the size of the network.

○ True

◉ False

Question 3

0.5 / 0.5 pts

Consider a perceptron model with two inputs [x1, x2] =[0.05 0.1] and the corresponding weights [w1, w2] =[20, 10]. Considering the bias on output activation unit as b= -2, the value of the output with sigmoid activation is

- ○ 0.25

- ○ 0.392

- ○ 0.293

- ⦿ 0.5

Question 4

0.5 / 0.5 pts

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Boosting is a method improving a model by combining independent strong  learners
```

- ○ True

- ⦿ False

Question 5

0.5 / 0.5 pts

Boosting is a method improving a model by combining independent strong learners

- ◉ Sum of the square of residuals ($\sum$ (Y-h(X))2) is minimum

- ○ Sum of the absolute value of residuals ($\sum$|Y-h(X)|) is maximum

- ○ Sum of residuals ($\sum$(Y – h(X))) is minimum

- ○ Sum of residuals ($\sum$(Y – h(X))) is maximum

Question 6

0.5 / 0.5 pts

If the regression equation is equal to y=23.6–54.2x, then the intercept and slope are :

- ○ -54.2 and 23.6

- ○ 12.99, 27.90

⦿ 23.6 and -54.2

Question 7   0.5 / 0.5 pts

> Each tree in a random forest is built on the subset of all the features.
> Each of the trees in a random forest is built on the full data/records

⦿ 1 is true 2 is false

○ both 1 and 2 are true

○ both 1 and 2 are false

○ 2 is true 1 is false

Question 8   0.5 / 0.5 pts

> Which of the following is not a hyperparameter in Neural Networks.

○ bias

○ learning rate

○ No. of hidden layers

○ epochs

Question 9

0.5 / 0.5 pts

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Consider the statements:
Statement 1. "Dropout is a technique to prevent overfitting of data"
Statement 2. "Lower learning rate causes minimal updates to weights"
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◉ Statement 1 and Statement 2 are true

○ Both Statement1 and Statement2 are false

○ Statement1 is true

○ Statement2 is true

Question 10   0.5 / 0.5 pts

1. Backpropagation transfers the error information from the end of the neural network to all the weights inside the network.

2. Forward propagation transfers the error information from the end of the neural network to all the weights inside the network.

○ Statement 1 is true and Statement2 is false

○ Both Statements are false

○ Both Statements are true

○ Statement2 is true Statement1 is false

Quiz Score: **5** out of 5