

Q1.

Inductive bias :-

The inductive bias in machine learning is used in decision tree learning. The decision tree is a set of graph that is the edge is connected. one edge is connected with the other. The tree in which it has parent node and child node. The parent node is connected with the child node. By using this the inductive bias can be calculated.

Q2.

Forms of learning :-

- * Supervised learning
- * Unsupervised learning
- * Semi Supervised learning
- * Reinforcement learning

It also uses the following algorithms in machine learning.

Neural network, Decision tree and some of the algorithms.

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Q 3.

Part A

The factor that affects the convergence speed of gradient descent. The method uses descent algorithm to find the solution.

Part B

By using the back propagation method to find the error in the given solution.

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It will use this method and uses descent algorithm to complete the task. Then the neural network factor is used and this problem is known as supervised learning.

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Q 4.

Part A

If the learning rate is too large in gradient descent then the method of neural network is used that is the method of back propagation can be

Part B

used because it will delete the error that is present in the given problem. So that we use the descent algorithm to find. Then the learning rate of the gradient descent can be identified.

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Q 5.

Linear and Nonlinear :-

* The Linear function in which the solution for the problem is linearly.

* In Non-linear the method will not go linearly.

* In linear function the class is used

* In Non linear function the kernel method is used.

* For the linear function the KNN is an example.

Q 6.

The regression problem in which the it will go linearly if the problem goes linearly straight then it is called as linear regression.

If it does not go linearly straight then it is called as non-linear regression.

It uses the kernel method to identify the solution.

The non-linear regression will be curve position or in spherical position.

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Q7.

Neuron

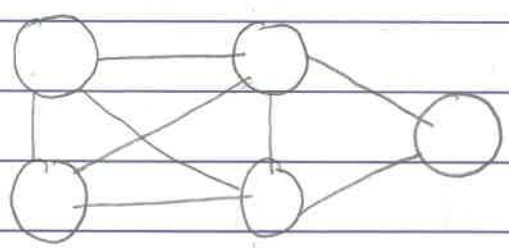
Part A

The artificial single neuron in which the single neural network is present. The neural network is classify as single neuron and multiple neuron based on the perception.

Part B

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Q8.

Accuracy

Part A

In the classification of problem the accuracy is calculated. The accuracy method is used to find the accurate value. It contains set of positive and negative value.

Part B

$$\text{Accuracy} = \frac{Tp + Tn}{Tp + Tp + Tn + Tn}$$

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Q 9.

In k -fold cross validation, the models are trained based on trained and test method.

If the $K = 10$ then the maximum value will be 10.

If the $K = 10$ then the maximum value will be 2.

If $K = 1, 2, 3, 4, 5, 6, 7, 8, 9, 10$

~~Tested~~ = 1

It will fold one value by using train and test method.

Q 10.

McNemar's Test

The McNemar's test is used to find the classification of problem.

The method of the McNemar is used to find the accuracy, simplicity, F-1 score, precision, and Recall to find the value for the given solution this method is used.

It is used in Gradient descent problem.
Vanishing gradient problem.