

MACHINE LEARNING

In Q1 to Q7, only one option is correct, Choose the correct option:

1. What is the advantage of hierarchical clustering over K-means clustering?
B) In hierarchical clustering you don't need to assign number of clusters in beginning
2. Which of the following hyper parameter(s), when increased may cause random forest to over fit the data?
A) max depth
3. Which of the following is the least preferable resampling method in handling imbalance datasets?
C) RandomUnderSampler
4. Which of the following statements is/are true about "Type-1" and "Type-2" errors? 1. Type1 is known as false positive and Type2 is known as false negative. 2. Type1 is known as false negative and Type2 is known as false positive. 3. Type1 error occurs when we reject a null hypothesis when it is actually true.
B) 1 only
5. Arrange the steps of k-means algorithm in the order in which they occur: 1. Randomly selecting the cluster centroids 2. Updating the cluster centroids iteratively 3. Assigning the cluster points to their nearest center
A) 3-1-2
6. Which of the following algorithms is not advisable to use when you have limited CPU resources and time, and when the data set is relatively large?
B) Support Vector Machines
7. What is the main difference between CART (Classification and Regression Trees) and CHAID (Chi Square Automatic Interaction Detection) Trees?
C) CART can only create binary trees (a maximum of two children for a node), and CHAID can create multiway trees (more than two children for a node)

In Q8 to Q10, more than one options are correct, Choose all the correct options:

8. In Ridge and Lasso regularization if you take a large value of regularization constant(λ), which of the following things may occur?

D) Lasso will cause some of the coefficients to become 0

9. Which of the following methods can be used to treat two multi-collinear features?

B) remove only one of the features

10. After using linear regression, we find that the bias is very low, while the variance is very high. What are the possible reasons for this?

A) Overfitting