DM-Spring-2020-Q6-Grade

94.74% (18/19)

1. KNN is

A data-driven method

B model-driven method

C I do not know

2. The dependent variable of the classification is

A categorical

B numeric

C I do not know

3. KNN can be used for regression

A Yes

B No

C I do not know

4. In the case of KNN classification we use

A average of outcomes

B majority voting scheme

C I do not know

5. Which of these errors will increase constantly by increasing k?

A train error

B test error

C both

D I do not know

6. This function can be used to perform KNN classificationin R

A knn()

B k_nn()

C knnreg()

D knearneib()

E I do not know

7. With the increase of k, the decision boundary will be

A simplified

B more complex

C I do not know

D unchanged

8. KNN algorithm is sensitive to outliers

A True

B False

C I do not know

9. KNN

A is a supervised learning algorithm.

B is an unsupervised learning algorithm.

C I do not know

10. In the case of small k we have

A overfitting

B underfitting

C it depends on the situation

D I do not know

11. Why do we need scaling in KNN?

A to avoid overfitting

B to avoid underfitting

C to have "equal" weights for variables

D I do not know

12. Let k = n, (n- number of observations), K-NN is same as

A random guessing

B everything will be classified as the most probable class (in total)

C everything will be classified as the least probable class (in total)

D I do not know

13. This function can be used to perform K-NN regression in R

A knn.reg

B knnforreg

C regknn

D knnforregression

E I do not know

14. Do you need to worry about scaling with one explanatory variable?

A No

B Yes

C I do not know

15. n - the number of observation, m - the number of explanatory variables When n=k, m=1, the decision boundary for regression is

A a line

B a stepwise constant function

C a stepwise quadratic function

D I do not know

16. Which of these algorithms can be used to fill the missing values

A KNN for regression

B KNN for classification

C both

D I do not know

17. Which one is better: KNN regression or Linear regression?

A KNN outperform LR if the parametric form that has been selected is close to the true linear form

B LR outperform KNN if the parametric form that has been selected is close to the true linear form

C KNN will always outperform the LR

D I do not know

18. Which one is the Disadvantage of KNN?

A required assumptions

B cannot be applied for regression

C difficult to perform

D the problem of high dimensional data

E I do not know

19. The best k for train set equals to

A 1

B 2

C 0

D I do not know