socrative

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89.47% (17/19)

✓ **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