

MACHINE LEARNING

In Q1 to Q11, only one option is correct, choose the correct option:

1. Which of the following methods do we use to find the best fit line for data in Linear Regression?
- A) Least Square Error
 - B) Maximum Likelihood
 - C) Logarithmic Loss
 - D) Both A and B

Answer: A)

2. Which of the following statement is true about outliers in linear regression?
- A) Linear regression is sensitive to outliers
 - B) linear regression is not sensitive to outliers
 - C) Can't say
 - D) none of these

Answer: A)

3. A line falls from left to right if a slope is_____?
- A) Positive
 - B) Negative
 - C) Zero
 - D) Undefined

Answer: B)

4. Which of the following will have symmetric relation between dependent variable and independent variable?
- A) Regression
 - B) Correlation
 - C) Both of them
 - D) None of these

Answer: B)

5. Which of the following is the reason for over fitting condition?
- A) High bias and high variance
 - B) Low bias and low variance
 - C) Low bias and high variance
 - D) none of these

Answer: C)

6. If output involves label then that model is called as:
- A) Descriptive model
 - B) Predictive modal
 - C) Reinforcement learning
 - D) All of the above

Answer: B)

7. Lasso and Ridge regression techniques belong to_____?
- A) Cross validation
 - B) Removing outliers
 - C) SMOTE
 - D) Regularization

Answer: D)

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8. To overcome with imbalance dataset which technique can be used?
- A) Cross validation
 - B) Regularization
 - C) Kernel
 - D) SMOTE

Answer: D)

9. The AUC Receiver Operator Characteristic (AUCROC) curve is an evaluation metric for binary classification problems. It uses _____ to make graph?
- A) TPR and FPR
 - B) Sensitivity and precision
 - C) Sensitivity and Specificity
 - D) Recall and precision

Answer: A)

10. In AUC Receiver Operator Characteristic (AUCROC) curve for the better model area under the curve should be less.
- A) True
 - B) False

Answer: B)

11. Pick the feature extraction from below:
- A) Construction bag of words from a email
 - B) Apply PCA to project high dimensional data
 - C) Removing stop words
 - D) Forward selection

Answer: A)

In Q12, more than one options are correct, choose all the correct options:

12. Which of the following is true about Normal Equation used to compute the coefficient of the Linear Regression?
- A) We don't have to choose the learning rate.
 - B) It becomes slow when number of features is very large.
 - C) We need to iterate.
 - D) It does not make use of dependent variable.

Answer: B)

Q13 and Q15 are subjective answer type questions, Answer them briefly.

13. Explain the term regularization?

Answer: Regularization is a method where we try to fit the training set in an appropriate way and avoiding overfitting.

14. Which particular algorithms are used for regularization?

Answer: Ridge regression, Lasso and Dropout.

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15. Explain the term error present in linear regression equation?

Answer: It is the difference between the expected value and the actual value.