

MACHINELEARNING

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 fitline for data in Linear Regression?
- A) LeastSquareError B)MaximumLikelihood
- C)LogarithmicLoss D)BothAandB

Ans. d

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

Ans.a

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

Ans.b

4. Whichof thefollowingwillhavesymmetric relationbetweendependent variableandindependent variable?
- A) Regression B)Correlation
- C)Bothofthem D)Noneofthese

Ans.c

5. Which of the following is the reason for overfitting condition?
- A) Highbiasandhighvariance B)Lowbiasandlowvariance
- C)Lowbiasandhighvariance D)noneofthese

Ans.c

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

Ans.a

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

Ans.d

8. To overcome with imbalance data set which technique canbe used?
- A) Cross validation B)Regularization
- C)Kernel D)SMOTE

Ans.d

MACHINELEARNING

9. The AUC Receiver Operator Characteristic (AUC ROC) 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

Ans.a

10. In AUC Receiver Operator Characteristic (AUC ROC) curve for the better model area under the curve should be less.

- A) True
- B) False

Ans.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

Ans.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.

Ans.b

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

13. Explain the term regularization?

Ans. Before regularization we have to know about overfitting, overfitting model is a model in which the model learns the training data too well, capturing all the fluctuations.

So in this case regularization is a technique which prevents this overfitting of the model.

14. Which particular algorithms are used for regularization?

Ans. a) Decision Tree

b) SVM

c) Lasso and Ridge

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

Ans. In Linear regression model we have some predicted values and the actual values. The difference between predicted value and the actual value is called the error.
