IS LAB VIVA Sec A (6-9-2021)

Hi HARSHVARDHAN, when you submit this form, the owner will be able to see your name and email address.

1. Write the advantages and disadvantages of : (i) Linear regression and (ii) Polynomial regression.

Advantages of Linear regression: i) Works well irrespective of the size of dataset. Disadvantages c

2. **Linear Regression is a supervised machine learning algorithm. True-False:**

True

3. Mention any two cases where the linear regression algorithm is suitable for a given dataset.

i) Predicting real estate house prices on previous data. ii) Predicting stock prices on previous data

4. **Overfitting is more likely when you have huge amount of data to train? True or False**

False

5. **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

6. Which evaluation metric should you prefer to use for a dataset having a lot of outliers in it?

Mean Absolute Error

7. If you get a poor accuracy using a simple linear regression model. What will be the cause behind it.

- ( ) A. The data was not linear
- ( ) B. The data has outliers
- (●) C. Both A or B depending on the context
- ( ) D. None

8. What is polynomial Regression?

The relationship between the independent variable x and dependent variable y is modeled as an

9. Linear regression is sensitive to outliers. True or False

True

10. What would be the best regression model for more than one independent variable?

- ○ A. Simple Linear Regression
- ◉ B. Multiple Linear Regression
- ○ C. Logistic Regression
- ○ D. All of the Above

11. What are the basic assumptions of the Linear Regression Algorithm?

There are four assumptions associated with a linear regression model: 1. Linearity: The relationsh

12. Suppose you got a training accuracy of 90% and a test accuracy of 50%. What happened with your model

- ◉ A. The model was over fitted with the training data
- ○ B. The model was under fitted with the training data
- ○ C. The model is absolutely fine
- ○ D. None

13. Explain the difference between Correlation and Regression.

Correlation represents the relationship between two variables whereas regression represents the

14. What are RMSE?

RMSE stands for Root Mean Square Error. It is an evaluation metric which is the square root of th

15. **Which of the following is true about Residuals ?**

- (●) A) Lower is better
- ( ) B) Higher is better
- ( ) C) A or B depend on the situation
- ( ) D) None of these

16. For the given lines of regression 3X–2Y=5and X–4Y=7. Find
(i) Regression coefficients.

For 3X-2Y=5, regression coefficient = 2/3. For X–4Y=7, regression coefficient = 4

17. **Linear Regression is mainly used for Regression. True-False:**

True

18. Suppose you have to predict the salary of employees from their experience. This is a

- ( ) A. Classification task
- (●) B. Regression task
- ( ) C. Clustering task
- ( ) D. None

19. **Which of the following evaluation metrics can be used to evaluate a model while modeling a continuous output variable?**

- ○ A) AUC-ROC
- ○ B) Accuracy
- ○ C) Logloss
- ◉ D) Mean-Squared-Error

20. What is Linear Regression?

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