1. Among the following identify the one in which dimensionality reduction reduces.
   Output: Collinearity
   Option:d

2. Which of the following machine learning algorithm is based upon the idea of bagging?
   Output: Random Forest
   Option:b

3. Choose a disadvantage of decision trees among the following.
   Output: Decision Tree are prone to overfit
   Option:c

4. What is the term known as on which the machine learning algorithms build a model based on sample data?
   Output: Training data
   Option:c

5. Which of the following machine learning techniques helps in detecting the outliers in data?

   Output: Anamoly detection

   Option:c

6. Identify the incorrect numerical functions in the various function representation of machine learning?
   Output: Case based
   Option:c

7. Analysis of ML algorithm needs
   Output: Both a and b
   Option:d

8. Identify the difficulties with the k-nearest neighbor algorithm.

   Output: Both a and b

   Option:c

9. The total types of the layer in radial basis function neural networks is

   Output:3
   Option:c

10. Which of the following is not a supervised learning
Output:PCA
Option:a

11. What is unsupervised learning?

Output: None of the above
Option:d

12. Which of the following is not a machine learning algorithm?
Output: SVM
Option:a

13. _____ is the scenario when the model fails to decipher the underlying trend in the input data
Output: Overfitting
Option:a

14. Real-Time decisions, Game AI, Learning Tasks, Skill acquisition, and Robot Navigation are applications of .....
Output: Reinforcement learning
Option:a

15. What is called the average squared difference between classifier predicted output and actual output?

Output: Root mean squared error

Option:d

16. Logistic regression is a ..... regression technique that is used to model data having a ..... outcome.

Output: Nonlinear, binary

Option:C

17. You are given reviews of few netflix series marked as positive, negative and neutral. Classifying reviews of a new netflix series is an example of

Output: supervised learning

Option:A

18. Following is powerful distance metrics used by Geometric model

Output: . both a and b
Option:C

19. Which of the following techniques would perform better for reducing dimensions of a data set?
Output: removing columns which have too many missing values
Option:A

20. Supervised learning and unsupervised clustering both require which is correct according to the statement.

Output: input attribute.

Option:C

21. What is the meaning of hard margin in SVM?

Output: SVM allows very low error in classification
Option:A

22. Increase in which of the following hyper parameter results into overfit in Random forest?
(1). Number of Trees. (2). Depth of Tree, (3). Learning Rate

Output: Only 2

Option:B

23. Below are the 8 actual values of target variable in the train file: [0,0,0, 0, 1, 1,1,1,1,1], What is the entropy of the target variable?
Output:) -(6/10 log(6/10) + 4/10 log(4/10))
Option:A

24. Lasso can be interpreted as least-squares linear regression where

Output: weights are regularized with the l1 norm
Option:A

25. Consider the problem of binary classification. Assume I trained a model on a linearly separable training set, and now I have a new labeled data point that the model properly categorized and is far away from the decision border. In which instances is the learnt decision

boundary likely to change if I now add this additional point to my previous training set and re-train? When the training model is,

OUTPUT: Logistic regression and Gaussian discriminant analysis
OPTION:B

26. Assume you've discovered multi-collinear features. Which of the following actions do you intend to take next? (1). Both collinear variables should be removed. (2). Instead of deleting both variables, we can simply delete one. (3). Removing correlated variables may result in information loss. We may utilize penalized regression models such as ridge or lasso regression to keep such variables.

Output: Either 2 or 3
Option:d

27. A least squares regression study of weight (y) and height (x) yielded the following least squares line: y = 120 + 5x. This means that if the height is increased by one inch, the weight should increase by what amount?

Output: increase by 5 pound
Option:b

28. The line described by the linear regression equation (OLS) attempts to ____?

Output: Minimize the number of points it touches
Option:c

29. For two real-valued attributes, the correlation coefficient is 0.85. What does this value indicate?

Output: As the value of one attribute decreases the value of the second attribute increases
Option:c

30. Which neural network architecture would be most suited to handle an image identification problem (recognizing a dog in a photo)?

Output: Convolutional Neural Network
Option:b