



SNS COLLEGE OF TECHNOLOGY

(An Autonomous Institution)

COIMBATORE-35

DEPARTMENT OF COMPUTER APPLICATIONS

19CAT703 Machine Learning MCQ



1. Common classes of problems in machine learning is
 - A. Regression
 - B. Clustering
 - C. Classification
 - D. All of the Above**
2. What is Machine learning?
 - A. The selective acquisition of knowledge through the use of manual programs
 - B. The selective acquisition of knowledge through the use of computer programs
 - C. The autonomous acquisition of knowledge through the use of computer programs**
 - D. None of the above
3. The most widely used metrics and tools to assess a classification model are
 - A. Confusion matrix
 - B. Cost-sensitive accuracy
 - C. Area under the ROC curve
 - D. All of the Above**
4. how do you handle missing or corrupted data in a dataset?
 - A. Drop missing rows or columns
 - B. Assign a unique category to missing values
 - C. Replace missing values with mean/median/mode
 - D. All of the Above**
5. machine learning algorithms build a model based on sample data known as
 - A. Transfer Data
 - B. Training Data**
 - C. Data Training
 - D. All of the Above
6. Which one in the following is not Machine Learning disciplines?
 - A. Physics
 - B. Neurostatistics**
 - C. Information Theory
 - D. Optimization + Control
7. is a machine learning technique that helps in detecting the outliers in data.
 - A. Clustering
 - B. Classification
 - C. Anomaly Detection**
 - D. None of the above
8. Machine Learning is a field of AI consisting of learning algorithms that
 - A. Executing some task
 - B. Over time with experience
 - C. Improve their performance
 - D. All of the Above**
9. Application of Machine learning is
 - A. email filtering
 - B. face recognition
 - C. sentimental analysis
 - D. All of the Above**
10. which of the following is not numerical functions in the various function representation of machine learning?
 - A. Case-based**
 - B. Neural Network
 - C. Linear Regression
 - D. Support Vector Machines

11. Machine Learning has various function representation, which of the following is not function of symbolic?
- A. Decision Trees
 - B. Rules in propositional Logic
 - C. Hidden-Markov Models (HMM)**
 - D. Rules in first-order predicate logic
12. The machine learning algorithms that can be used with unlabeled data is
- A. Regression algorithms
 - B. Instance-based algorithms
 - C. Clustering algorithms**
 - D. All of the Above
13. Which among the following algorithms are used in Machine learning?
- A. Naive Bayes
 - B. K-Nearest Neighbors
 - C. Support Vector Machines
 - D. All of the Above**
14. The supervised learning problem can be grouped as
- A. Regression problems
 - B. Classification problems
 - C. Both A & B**
 - D. None of the above
15. What is true about Machine Learning?
- A. Machine Learning (ML) is that field of computer science
 - B. ML is a type of artificial intelligence
 - C. ML is a field of AI consisting of learning algorithms
 - D. All of the Above**
16. The instance-based learner is a
- A. Eager learner
 - B. Lazy-learner**
 - C. Both A & B
 - D. None of the Above
17. What are practical difficulties with Bayesian Learning?
- A. No consistent hypothesis
 - B. Hypotheses make probabilistic predictions
 - C. Initial knowledge of many probabilities is required**
 - D. All of the Above
18. Which of the following is a widely used and effective machine learning algorithm based on the idea of bagging?
- A. Regression
 - B. Decision Tree
 - C. Classification
 - D. Random Forest**
19. In Machine learning the module that must solve the given performance task is known as
- A. Critic
 - B. Generalizer
 - C. Performance system**
 - D. None of the above
20. For the analysis of ML algorithms, we need
- A. Statistical learning theory
 - B. Computational learning theory
 - C. Both A & B**
 - D. None of the above
21. Neural Networks are complex functions with many parameter.
- A. **Linear**
 - B. Discrete
 - C. Non linear
 - D. Exponential
22. Which of the following are the decision tree nodes?
- A. End Nodes
 - B. Decision Nodes

C. Chance Nodes

D. All of the Above

23. Genetic algorithms belong to the family of methods in the

A. optimization

B. artificial intelligence area

C. complete enumeration family of methods

D. Non-computer based (human) solutions area

Q.1 Linear Regression is a supervised machine learning algorithm.

A : TRUE

B : FALSE

Ans: True

Q.2 Linear Regression is mainly used for Regression.

A : TRUE

B : FALSE

Ans:True

Q.4 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

Ans:Least Square Error

Q.4 In linear regression, we try to _____ the least square errors of the model to identify the line of best fit.

A : minimize

B : Maximize

C : change

D : none of the above

Ans:Minimize

Q.5 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

Ans:Mean – Squared – Error

Q.6 Lasso Regularization can be used for variable selection in Linear Regression.

A : TRUE

B : FALSE

Ans:True

Q.7 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

Ans: Lower is better

Q.8 Suppose that we have N independent variables (X1,X2... Xn) and dependent variable is Y. Now Imagine that you are applying linear regression by fitting the best fit line using least square error on this data. You found that correlation coefficient for one of it's variable(Say X1) with Y is -0.95. Which of the following is true for X1?

A : Relation between the X1 and Y is weak

B : Relation between the X1 and Y is strong

C : Relation between the X1 and Y is neutral

D : Correlation can't judge the relationship

Ans: Relation between the X1 and Y is strong

Q.6 The absolute value of the correlation coefficient denotes the strength of the relationship.

A : TRUE

B : FALSE

Ans:True

Q.9 Looking at above two characteristics, which of the following option is the correct for Pearson correlation between V1 and V2?

If you are given the two variables V1 and V2 and they are following below two characteristics.

1. If V1 increases then V2 also increases
 2. If V1 decreases then V2 behavior is unknown
- A : Pearson correlation will be close to 1
B : Pearson correlation will be close to -1
C : Pearson correlation will be close to 0
D : None of these

Ans:None of thes

Q.10 Suppose Pearson correlation between V1 and V2 is zero. In such case, is it right to conclude that V1 and V2 do not have any relation between them?

- A : TRUE
B : FALSE

Ans:false

Q.11 Which of the following offsets, do we use in linear regression's least square line fit? Suppose horizontal axis is independent variable and vertical axis is dependent variable.

- A : Vertical offset
B : Perpendicular offset
C : Both, depending on the situation
D : None of above

Ans:Vertical offset