

Machine learning mcq

1. What is machine learning?

- ☐ The selective acquisition of knowledge through the use of manual programs
- ☐ The selective acquisition of knowledge through the use of computer programs
- ☐ The autonomous acquisition of knowledge through the use of manual programs
- ☐ The autonomous acquisition of knowledge through the use of computer programs

Ans: The autonomous acquisition of knowledge through the use of computer programs

2. Machine Learning is a field of AI consisting of learning algorithms that

At executing some task

Over time with experience

Improve their performance

All of the above

Ans: All of the above

Exp: All of the above options are correct.

3. is a widely used and effective machine learning algorithm based on the idea of bagging.

Regression

Classification

Decision Tree

Random Forest

Ans:Random Forest

Exp: Random Forest is a widely used and effective machine learning algorithm based on the idea of bagging.

4. What is the disadvantage of decision trees?

Factor analysis

Decision trees are robust to outliers

Decision trees are prone to be overfit

All of the above

Ans:Decision trees are prone to be overfit

Exp: The disadvantage of decision tree is Decision trees are prone to be overfit.

5. How can you handle missing or corrupted data in a dataset?

Drop missing rows or columns

Assign a unique category to missing values

Replace missing values with mean/median/mode

All of the above

Ans:All of the above

Exp: All options are correct.

6. Which of the followings are most widely used metrics and tools to assess a classification model?

Confusion matrix

Cost-sensitive accuracy

Area under the ROC curve

All of the above

Ans: All of the above

Exp: Confusion matrix, Cost-sensitive accuracy, & Area under the ROC curve are most widely used metrics and tools to assess a classification model.

7. Machine learning algorithms build a model based on sample data, known as

Training Data

Transfer Data

Data Training

None of the above

Ans: Training Data

Exp: Machine learning algorithms build a model based on sample data, known as Training Data.

8. Machine learning is a subset of

Deep Learning

Artificial Intelligence

Data Learning

None of the above

Ans:Artificial Intelligence

Exp: Machine learning is a subset of Artificial Intelligence.

9. A Machine Learning technique that helps in detecting the outliers in data.

Clustering

Classification

Anamoly Detection

All of the above

Ans:Anamoly Detection

Exp: A Machine Learning technique that helps in detecting the outliers in data
Anamoly Detection.

10. Who is the father of Machine Learning?

Geoffrey Hill

Geoffrey Chaucer

Geoffrey Everest Hinton

None of the above

Read Best: Basic Machine Learning Interview Questions

Ans:Geoffrey Everest Hinton

Exp: Geoffrey Everest Hinton is the father of Machine Learning.

11. What is the most significant phase in a genetic algorithm?

Selection

Mutation

Crossover

Fitness function

Ans:Crossover

Exp; Crossover is the most significant phase in a genetic algorithm.

12. Which one in the following is not Machine Learning disciplines?

Physics

Information Theory

Neurostatistics

Optimization Control

Ans:Neurostatistics

Exp: Neurostatistics is not Machine Learning disciplines.

13. Machine Learning has various function representation, which of the following is not function of symbolic?

Decision Trees

Rules in propotional Logic

Rules in first-order predicate logic

Hidden-Markov Models (HMM)

Ans:Hidden-Markov Models (HMM)

Exp: Machine Learning has various function representation, Hidden-Markov Models (HMM) is not function of symbolic.

14. algorithms enable the computers to learn from data, and even improve themselves, without being explicitly programmed.

Deep Learning

Machine Learning

Artificial Intelligence

None of the above

Ans:Machine Learning

Exp: Machine Learning algorithms enable the computers to learn from data, and even improve themselves, without being explicitly programmed.

15. What are the three types of Machine Learning?

Supervised Learning

Unsupervised Learning

Reinforcement Learning

All of the above

Ans:All of the above

Exp: There are 3 types of machine learning, which are Supervised Learning, Unsupervised Learning, and Reinforcement Learning.

16. Which of the following is not a supervised learning?

PCA

Naive Bayesian

Linear Regression

Decision Tree Answer

Ans:PCA

Exp: PCA is not a supervised learning.

17. Real-Time decisions, Game AI, Learning Tasks, Skill acquisition, and Robot Navigation are applications of

Reinforcement Learning

Supervised Learning: Classification

Unsupervised Learning: Regression

None of the above

Ans:Reinforcement Learning

Exp: Real-Time decisions, Game AI, Learning Tasks, Skill acquisition, and Robot Navigation are applications of Reinforcement Learning.

18. Which of the following is not numerical functions in the various function representation of Machine Learning?

Case-based

Neural Network

Linear Regression

Support Vector Machines

Ans:Case-based

Exp: Case-based is not numerical functions in the various function representation of Machine Learning.

19. Common classes of problems in machine learning is

Clustering

Regression

Classification

All of the above

Ans: All of the above

Exp; All options are correct. Common classes of problems in machine learning is Clustering, Regression & Classification.

20. Which of the following clustering algorithm merges and splits nodes to help modify nonoptimal partitions?

K-Means clustering

Conceptual clustering

Agglomerative clustering

All of the above

Ans: K-Means clustering

Exp: K-Means clustering algorithm merges and splits nodes to help modify nonoptimal partitions.

21. Missing data items are with Bayes classifier.

Ignored

Treated as equal compares

Treated as unequal compares.

Replaced with a default value.

Ans:Treated as unequal compares.

Exp: Missing data items are treated as unequal compares with Bayes classifier.

22. Which supervised learning technique can process both numeric and categorical input attributes?

Bayes classifier

Linear regression

Ogistic regression

None of the above

Ans:Linear regression

Exp: Linear regression supervised learning technique can process both numeric and categorical input attributes.

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

Linear, binary

Linear, numeric

Nonlinear, binary

Nonlinear, numeric

Ans:Nonlinear, binary

Exp: Logistic regression is a nonlinear regression technique that is used to model data having a binary outcome.

24. Regression trees are often used to model which data?

Linear

Nonlinear

Categorical

None of the above

Ans:Nonlinear

Exp: Regression trees are often used to model nonlinear data.

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

Mean relative error

Mean squared error

Mean absolute error

Root mean squared error

Ans:Mean squared error

Exp: Mean squared error is called the average squared difference between classifier predicted output and actual output.

26. Data used to optimize the parameter settings of a supervised learner model is called

Test

Training

Validation

None of the above

Ans:Validation

Exp: Data used to optimize the parameter settings of a supervised learner model is called validation.

27. Bootstrapping allows us to choose the same training instance several times.

True

False

Ans: True

Explanation: True! Bootstrapping allows us to choose the same training instance several times.

28. The average positive difference between computed and desired outcome values

Mean positive error

Mean absolute error

Mean squared error

Root mean squared error

Ans: Mean positive error

Exp: The average positive difference between computed and desired outcome values is called Mean positive error.

29. Which of the following statement is true about prediction problems?

The output attribute must be numeric.

The output attribute must be categorical

The resultant model is designed to determine future outcomes

The resultant model is designed to classify current behavior.

Ans: The resultant model is designed to classify current behavior.

Exp: The resultant model is designed to classify current behavior is true about prediction problems.

30. What is the another name for an output attribute?

Predictive variable

Estimated variable

Dependent variable

Independent variable

Ans:Independent variable

Exp: Independent variable is the another name for an output attribute.

31. Supervised learning and unsupervised clustering both require at least one

Input attribute

Output attribute

Hidden attribute

Categorical attribute

Ans:Hidden attribute

Exp: Supervised learning and unsupervised clustering both require at least one hidden attribute.

32. is not a machine learning algorithm.

SVG

SVM

Random forest

All of the above

Ans:SVG

Exp: SVG is not a machine learning algorithm.

33. Identify which is not machine learning disciplines?

Physics

Information theory

Nuero Statistics

None of the above

Ans:Nuero Statistics

Exp: Nuero Statistics is not machine learning disciplines.

34. What is the full form of PAC?

Probably Approx Cost

Probably Approximate Correct

Probability Approx Communication

None of the above

Ans:Probably Approximate Correct

Exp: The full form of PAC is Probably Approximate Correct?

35. Analysis of Machine Learning algorithm needs

Statistical learning theory

Computational learning theory

Both Statistical & Computational learning theory

None of the above

Ans:Both Statistical & Computational learning theory

Exp: Analysis of Machine Learning algorithm needs Both Statistical & Computational learning theory.

36. Choose the incorrect numerical functions in the various function representation of machine learning.

Case-based

Neural Network

Linear regression

All of true

Ans:Case-based

Exp: Case-based is the incorrect numerical functions in the various function representation of machine learning.

37. What are successful applications of Machine Learning?

Learning to recognize spoken words

Learning to drive an autonomous vehicle

Learning to classify new astronomical structures

All of the above

Ans:All of the above

Exp: All options are correct.

38. What is called the application of machine learning methods to large databases?

Data mining

Internet of things

Artificial intelligence

None of the above

Ans:Data mining

Exp: Data mining is called the application of machine learning methods to large databases.

39. If machine learning model output involves target variable then that model is called as predictive model.

True

False

Ans:True

Exp: True! If machine learning model output involves target variable then that model is called as predictive model.

40. are the best machine learning method.

Fast

Accuracy

Scalable

All of the above

Ans:All of the above

Exp: Fast, accuracy, and scalable are the best machine learning method.

41. What is the output of training process in machine learning?

Null

Accuracy

Machine learning model

Machine learning algorithm

Ans:Machine learning model

Exp: Machine learning model is the output of training process in machine learning.

42. A model of language consists of the categories, does not include

Language units

Structural units

System constraints

Role structure of units

Ans:Structural units

Exp: A model of language consists of the categories, does not include Structural units.

43. Regression discovers causal relationships.

True

False

Ans:True

Exp: True! Regression discovers causal relationships.

44. is the approach of basic algorithm for decision tree induction.

Greedy

Top Down

Procedural

Step by Step

Ans:Greedy

Exp: Greedy is the approach of basic algorithm for decision tree induction.

45. What is the way to ensemble multiple classifications or regression?

Bagging

Blending

Boosting

Stacking

Ans:Stacking

Exp: Stacking is the way to ensemble multiple classifications or regression.

46. What is the most common issue when using Machine Learning?

Poor Data Quality

Lack of skilled resources

Inadequate Infrastructure

None of the above

Ans:Poor Data Quality

Expl: Poor Data Quality is the most common issue when using Machine Learning.

47. In Machine learning the module that must solve the given performance task is known as

Critic

Generalizer

Performance system

All of these

Ans: Performance system
Expl: In Machine learning the module that must solve the given performance task is known as Performance system.

48. Which methods are used for the calibration in Supervised Learning?

Platt Calibration

Isotonic Regression

Both Platt Calibration & Isotonic Regression

None of the above

Ans: Both Platt Calibration & Isotonic Regression

Expl: Both Platt Calibration & Isotonic Regression are used for the calibration in Supervised Learning.

49. How many types are available in machine learning?

2

3

4

5

Ans: 3

Expl: There are 3 types available in machine learning.

50. The Bayes rule can be used in

Solving queries

Increasing complexity

Decreasing complexity

Answering probabilistic query

Ans: Answering probabilistic query
Expl: The Bayes rule can be used in answering probabilistic query.