

computer knowledge-machine learning mcq online test-paper1

How do you handle missing or corrupted data in a dataset?

- ☐ A Drop missing rows or columns
- ☐ B Replace missing values with mean/median/mode
- ☐ C Assign a unique category to missing values
- ☐ D All of the above

Answer : D

Application of machine learning methods to large databases is called-

- ☐ A data mining
- ☐ B artificial intelligence
- ☐ C internet of things
- ☐ D cloud computing

Answer : A

If machine learning model output involves a target variable then that model is called as-

- ☐ A descriptive model
- ☐ B predictive model
- ☐ C reinforcement learning
- ☐ D None of these

Answer : B

In what type of learning labeled training data is used-

- ☐ A unsupervised learning
- ☐ B supervised learning
- ☐ C reinforcement learning
- ☐ D active learning

Answer : B

What does dimensionality reduction reduce?

- ☐ A stochastics
- ☐ B collinearity
- ☐ C performance
- ☐ D entropy

Answer : B

Type of matrix decomposition model is-

- ☐ A descriptive model
- ☐ B predictive model
- ☐ C logical model
- ☐ D regression

Answer : A

ML is a field of AI consisting of learning algorithms that?

- ☐ A Improve their performance
- ☐ B At executing some task
- ☐ C Over time with experience
- ☐ D All of the above

Answer : B

The action _____ of a robot arm specify to Place block A on block B.

- ☐ A STACK(A,B)
- ☐ B LIST(A,B)
- ☐ C QUEUE(A,B)
- ☐ D ARRAY(A,B)

Answer : A

A _____ begins by hypothesizing a sentence (the symbol S) and successively predicting lower level constituents until individual preterminal symbols are written.

- ☐ A bottom-up parser
- ☐ B top parser
- ☐ C top-down parser
- ☐ D bottom parser

Answer : C

A model of language consists of the categories which do not include _____.

- ☐ A System unit
- ☐ B structural units
- ☐ C data units
- ☐ D empirical units

Answer : B

Which of the following are ML methods?

- ☐ A based on human supervision
- ☐ B supervised learning

- ☐ C semi-reinforcement learning
- ☐ D All of the above

Answer : A

To find the minimum or the maximum of a function, we set the gradient to zero because:

- ☐ A The value of the gradient at extrema of a function is always zero
- ☐ B Depends on the type of problem
- ☐ C Both A and B
- ☐ D None of these

Answer : A

In Model-based learning methods, an iterative process takes place on the ML models that are built based on various model parameters, called?

- ☐ A mini-batches
- ☐ B optimized parameters
- ☐ C hyperparameters
- ☐ D superparameters

Answer : C

When performing regression or classification, which of the following is the correct way to preprocess the data?

- ☐ A Normalize the data -> PCA -> training
- ☐ B PCA -> normalize PCA output -> training
- ☐ C Normalize the data -> PCA -> normalize PCA output -> training
- ☐ D None of these

Answer : A

Which of the following is a disadvantage of decision trees?

- ☐ A Factor analysis
- ☐ B Decision trees are prone to be overfit
- ☐ C Decision trees are robust to outliers
- ☐ D None of these

Answer : B

Which of the following is a reasonable way to select the number of principal components "k"?

- ☐ A Choose k to be the smallest value so that at least 99% of the variance is retained
- ☐ B Choose k to be 99% of m ($k = 0.99 \cdot m$, rounded to the nearest integer)
- ☐ C Choose k to be the largest value so that 99% of the variance is retained.

☐ D Use the elbow method.

Answer : A

High entropy means that the partitions in classification are:

- ☐ A pure
- ☐ B not pure
- ☐ C useful
- ☐ D useless

Answer : B

What is a sentence parser typically used for?

- ☐ A It is used to parse sentences to check if they are utf-8 compliant.
- ☐ B It is used to parse sentences to derive their most likely syntax tree structures.
- ☐ C It is used to parse sentences to assign POS tags to all tokens.
- ☐ D It is used to check if sentences can be parsed into meaningful tokens.

Answer : B

Which of the following techniques can not be used for normalization in text mining?

- ☐ A Stemming
- ☐ B Stop word removal
- ☐ C Lemmatization
- ☐ D None of these

Answer : B

Suppose we would like to perform clustering on spatial data such as the geometrical locations of houses. We wish to produce clusters of many different sizes and shapes. Which of the following methods is the most appropriate?

- ☐ A Decision Trees
- ☐ B Density-based clustering
- ☐ C Model-based clustering
- ☐ D k-means clustering

Answer : B