

Thank you. Your test submitted.

You have cleared this assessment.

Obtained Percentage

Obtained Marks

83.33 %

10 / 12

Best Attempt Score:83.33 % on 22-03-2025

Select the INCORRECT statement with respect to SVM algorithm.

- ☐ In SVM, a margin is a separation between two classes.
- ☒ SVM cannot be used for multi-class classification.
- ☐ SVM can perform both linear and non-linear classification.

Warning

This operation is disabled.

In decision trees, which of the following attribute selection measures is used to select an attribute for splitting the data at a node?

☒ Gini Index

☐ SSE

☐ SST

☐ SSR

Warning

This operation is disabled.

A bank seeks your help in identifying fraudulent online transactions based on historic data. The historic data contains the details of each transaction such as date, time, customer id, amount, source of transaction (ip address), etc. The historic data also contains whether the transaction was genuine or fraudulent. What kind of machine learning algorithm would you use?

- ☒ Classification
- ☐ Regression
- ☐ Clustering

Warning

This operation is disabled.

You have the following data about the various restaurants in your city.

Place_ID	Region	Budget	Parking	Rating
P1001	East	Low	Free Parking	Very good
P1002	East	Low	Paid Parking	Good
P1003	East	High	Paid Parking	Good
P1004	West	Medium	Free Parking	Very good
P1005	East	Low	Free Parking	Very good
P1006	East	High	Free Parking	Very good
P1007	West	Medium	Free Parking	Good

Warning

This operation is disabled.

Ok

You are asked to create a classification model, which predicts the rating of a restaurant based on region, budget and parking information. If you try to build the model using decision tree, which attribute you may choose as the best-attribute to split the tree at the root node ?

- ☐ Region
- ☒ Budget
- ☐ Parking
- ☐ any of the given options

In k-nearest neighbor algorithm, k stands for the _____.

- ☒ number of closest neighbors to be considered
- ☐ number of iterations
- ☐ number of total records
- ☐ none of the given options

Warning

This operation is disabled

Consider the following confusion matrix:

	ClassX	ClassY	ClassZ
ClassX	10	5	3
ClassY	5	15	3
ClassZ	2	2	5

What percentage of instances were INCC

- ☐ 20%
- ☐ 80%
- ☐ 60%
- ☒ 40%

Warning

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Ensemble learning is a technique of using multiple learning models to improve prediction accuracy. Choose the ensemble technique(s) from the given options.

- ☒ Bagging
- ☒ Boosting
- ☐ k-fold crossvalidation

Warning

This operation is disabled.

When building a regression model to predict the price of a house with predictors 'sqft_living' and 'age_of_house', the following coefficients were obtained -

- Intercept: 10,000
- sqft_living: 300
- age_of_house: -30

Which of the following conditions should be True?

'sqft_living' is more important than 'age_of_house'?

- ☐ Both age_of_house and sqft_living must be considered
- ☒ Both age_of_house and sqft_living must be removed
- ☐ Intercept term should not be included when

Warning

This operation is disabled.

Ok

The summary of the output of a simple linear regression analysis for a sample of size 15 is given below:

SST (sum of squared total)= 152

SSR (sum of squared regression)= 100

The coefficient of determination is ____.

- ☐ 0.52
- ☒ 0.6579
- ☐ 0.8111
- ☐ 1.52

Warning

This operation is disabled.

Ok

Following is the data from a bank regarding the loan applications.

Age	Income	Default
25	600000	Yes
32	100000	No
31	500000	Yes
45	1200000	No
44	800000	No
29	1400000	No
27	450000	No
34	600000	Yes
51	700000	No
33	1000000	Yes

Warning

This operation is disabled.

Ok

You are building a model in order to predict if an applicant will be a defaulter by taking the age and income into consideration. Which of the following options are best suited?

- ☒ Use kNN by normalizing age and income as the ranges are quite different.
- ☐ Use kNN without normalizing the data.
- ☐ Use Simple Linear Regression.
- ☐ Use Multiple Linear Regression.

Consider a dataset, Z on which a decision tree is built. Consider the split attribute learnt at the root of the decision tree. Which of the following will hold True if one of the data points in the dataset is removed and the tree is rebuilt?

- ☒ The split attribute at the root will be exactly
- ☐ The split attribute could be the same or could
- ☐ The split attribute cannot be done as the data

Warning

This operation is disabled.

You are given a data pertaining to loan applications containing the following attributes.

Attribute	Nature	Description
Income	Quantitative	Annual income of the applicant in INR.
Loan amount	Quantitative	Loan amount applied in INR.
Default	Binary	Whether the person has defaulted. 0: No, 1: Yes.

Warning

This operation is disabled.

Ok

You need to build a model which takes income and loan amount as predictors and returns the probability of the applicant being a defaulter.

Which of the following algorithms would be the best choice?

- ☒ Logistic regression
- ☐ KNN
- ☐ Decision tree
- ☐ Any of the given options