

QF632-2025-W9

Number of participants: 24



1. Which of the following is a type of clustering?

11 correct answers
out of 11 respondents

Linear Regression

0%

0 votes

Logistic Regression

0%

0 votes

Decision Trees

0%

0 votes



K-Means

100%

11 votes



2. In K-Means clustering, the 'K' stands for:

12 correct answers
out of 12 respondents

The total number of features

0%

0 votes



The number of clusters to be formed

100%

12 votes

The maximum iterations allowed

0%

0 votes

The learning rate

0%

0 votes



3. Hierarchical clustering uses which approach?

10 correct answers
out of 15 respondents

Agglomerative (bottom-up approach)

13%

2 votes

Divisive (top-down approach)

20%

3 votes



Both a and b

67%

10 votes

None of the above

0%

0 votes



The 'elbow' in the Elbow Method

4. for determining the optimal number of clusters (K) in K-Means is:

9 correct answers
out of 15 respondents



The point where adding another cluster does not significantly decrease the total intra-cluster variance.



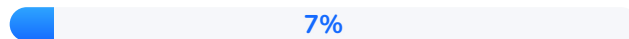
9 votes

The point where adding another cluster significantly increases the total intra-cluster variance.



2 votes

The point where adding another cluster does not change the total intra-cluster variance.



1 vote

The point where adding another cluster significantly decreases the total intra-cluster variance.



3 votes



5. The main purpose of dimensionality reduction techniques is:

15 correct answers
out of 17 respondents

Reducing computational resources and speeding up the learning algorithm.



12%

2 votes

Minimizing the curse of dimensionality.



0%

0 votes

Visualizing high-dimensional data.



0%

0 votes



All of the above.



88%

15 votes



6. Feature selection and feature extraction:

12 correct answers
out of 12 respondents

Mean the same thing.

0%

0 votes

Are completely different; there is no overlap.

0%

0 votes

Both reduce dimensionality, but feature extraction creates new variables, whereas feature selection only keeps a subset of the original variables.



100%

12 votes

Both create new variables, but feature extraction reduces dimensionality, whereas feature selection does not.

0%

0 votes