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Quiz 1 - K-Means, DBSCAN and Hierarchical clustering

Type	:	Graded Quiz
Attempts	:	1/1
Questions	:	15
Time	:	25m
Due Date	:	Nov 10, 11:59 PM IST
Your Marks	:	15/15

Instructions

Attempt History

Attempt #1

Nov 02, 10:27 AM

Marks: 15

**Q No: 1****Correct Answer**

Marks: 1/1

Which of the following equation can be used to compute Euclidean distance?

None of the given options Square root of $((x_2 - x_1)^2 + (y_2 - y_1)^2)$

You Selected

 $(x_2 - x_1)^2 + (y_2 - y_1)^2$ $(x_2 - x_1) + (y_2 - y_1)$ **Q No: 2**

Correct Answer

Marks: 1/1

The goal of clustering is to-

 All of the given options are correct Classify the data point into different classes Predict the output values of input data points Divide the data points into groups

You Selected

Q No: 3

Correct Answer

Marks: 1/1

Which of the following clustering algorithm is most sensitive to outliers?

 K-Means

You Selected

 DBSCAN K- Modes KNN

Q No: 4**Correct Answer**

Marks: 1/1

The initial metrics distance between B and A is 4, and the distance between C and A is 6. Assuming the cluster BC is formed, what is the distance between the cluster (BC) and A using complete and single link method

 4,5 4,6 5,6 6,4**You Selected****Q No: 5****Correct Answer**

Marks: 1/1

Which of the following statement on Dendrogram is NOT TRUE:

- (i) The key to interpreting a Dendrogram is to focus on the height at which any two objects are joined together
- (ii) A Dendrogram is a diagram that shows the hierarchical relationship between objects.
- (iii) The width of the Dendrogram is the cluster distance measure
- (iv) Dendrogram can be plot for Hierarchical clustering

 All are true (ii) (iii)**You Selected** (i)

Q No: 6**Correct Answer**

Marks: 1/1

Which of the following clustering algorithm follows a top to bottom approach?

 None of the given options Divisive**You Selected** Agglomerative K-means**Q No: 7****Correct Answer**

Marks: 1/1

On which data type, we cannot perform cluster analysis?

 Time series data Text data Multimedia data All of the given options are correct**You Selected****Q No: 8****Correct Answer**

Marks: 1/1

Elbow graph is drawn between which of the following two parameters?

- Number of clusters (K) vs Silhouette score
- Number of clusters (K) Vs Sum of square error within clusterYou Selected
- Number of clusters (K) Vs Manhattan distance
- . Number of clusters (K) vs sum of square of distance between the point from one cluster to other

Q No: 9Correct Answer

Marks: 1/1

What is the full form of DBSCAN?

- Distance-Based Segmented Clustering of Applications with Noise
- Density-Based Spatial Clustering of Applications with NoiseYou Selected
- Density-Based Segmented Clustering of Applications with Noise
- Distance-Based Spatial Clustering of Applications with Noise

Q No: 10Correct Answer

Marks: 1/1

Which of the following characteristics are used in determining the optimal set of clusters?

- Compact clusters
- Small clusters
- Both compact and distinct clustersYou Selected
- Distinct clusters

Q No: 11**Correct Answer**

Marks: 1/1

Which of the following linkage methods provides a chain like structure while clustering groups?

 Ward Linkage Complete Linkage Average Linkage Single Linkage**You Selected****Q No: 12****Correct Answer**

Marks: 1/1

Which one of the following techniques does not require the variables to be separated as dependent or independent?

 Classification Clustering**You Selected** Boosting Regression**Q No: 13****Correct Answer**

Marks: 1/1

What is the minimum no. of variables/ features required to perform clustering?

1

You Selected

 0 3 2**Q No: 14**

Correct Answer

Marks: 1/1

For which algorithm/s, there is no need to pre-specify the number of clusters?

 Hierarchical clustering K-Means Both DBSCAN and Hierarchical clustering

You Selected

 DBSCAN**Q No: 15**

Correct Answer

Marks: 1/1

Assume, you want to cluster 7 observations into 3 clusters using K-Means clustering algorithm.

After first iteration clusters, C1, C2, C3 has following observations:

C1: {(2,2), (4,4), (6,6)}

C2: {(0,4), (4,0)}

C3: {(6,6), (10,10)}

What will be the cluster centroids if you want to proceed for second iteration?

None of these[◀ Previous](#)[Next ▶](#)

C1: (5,6), C2: (4,4), C3: (9,9)

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