

Machine Learning Assignment-1

Answers

1-a

2-d

3-d

4-a

5-b

6-d

7-d

8-b

9-a

10-a

11-d

12-a

13-Cluster Analysis calculation is based on the following steps.

- Define the number of clusters
- Set cluster centers randomly
- Assign point to clusters
- Calculate the center of each cluster.
- Assign point to new cluster.

14- Cluster quality is measured based on the average silhouette approach which explains the method of interpretation and validation of consistency within clusters of data.

Silhouette Approach- It displays a measure of how close each point in one cluster is to points in the neighboring clusters and thus provides a way to assess parameters like number of clusters visually.

15- Cluster analysis is a multivariate data mining technique whose goal is to find similar groups of objects (eg., products, respondents, or other entities) based on a set of user selected characteristics or attributes. It is the basic and most important step of data mining and a common technique for statistical data analysis.

Types of cluster Analysis are as follows.

- Distribution Method.
- Hierarchical Method.
- Centroid / Partition based Method.
- Density Based Method.

- Grid Based Method
- Constraint Based Method.