## **MACHINE LEARNING**

## **Answers of Following Questions-**

_
Ans 1-(b) 4
Ans 2-(d) 1, 2 and 4
Ans 3-(d) formulating the clustering problem
Ans 4-(a) Euclidean distance
Ans 5-(b) Divisive clustering
Ans 6-(d) All answers are correct
Ans 7-(a) Divide the data points into groups
Ans 8-(b) Unsupervised learning
Ans 9-(d) All of the above
Ans 10-(a) K-means clustering algorithm
Ans 11-(d) All of the above
Ans 12-(a) Labeled data
Ans 13-The hierarchical cluster analysis follows three basic steps:-
1) calculate the distances
2) link the clusters
3) choose a solution by selecting the right number of clusters
Ans 14-To measure the quality of a clustering, we can use the average silhouette coefficient value of all objects in the data set
Ans 15-Cluster analysis is a data analysis technique that explores the naturally occurring groups within a data set known as clusters.
types of clustering are:-
Density-Based Clustering
DBSCAN (Density-Based Spatial Clustering of Applications with Noise)
OPTICS (Ordering Points to Identify Clustering Structure)

HDBSCAN (Hierarchical Density-Based Spatial Clustering of Applications with Noise)
Hierarchical Clustering
Fuzzy Clustering
Partitioning Clustering
PAM (Partitioning Around Medoids)
Grid-Based Clustering