

# **Machine Learning**

## **ASSIGNMENT – 1**

**Answer No. 01:-** Option(b) -> 4

**Answer No. 02:-**Option(d) -> 1,2 and 4

**Answer No. 03:-** Option(d) -> formulating the clustering problem

**Answer No. 04:-** Option(a) -> Euclidean distance

**Answer No. 05:-** Option(b) -> Divisive clustering

**Answer No. 06:-** Option(b) -> Number of clusters

**Answer No. 07:-** Option(a) -> Divide the data points into groups

**Answer No. 08:-** Option(b) -> Unsupervised learning

**Answer No. 09:-** Option(d) -> All of the above

**Answer No. 10:-** Option(a) -> K-means clustering algorithm

**Answer No. 11:-** Option(d) -> All of the above

**Answer No. 12:-** Option(a) -> Labeled data

**Answer No. 13:-** The cluster analysis follows 3 basic steps

1. Calculate the distances
2. Link the clusters
3. Choose a solution by selecting the right number of clusters.

**Answer No. 14:-** To measure the quality of a clustering, we can use the dissimilarity/Similarity metric.

**Answer No. 15:-** Cluster analysis is a multivariate data mining technique whose goal is to group objects based on a set of user selected characteristics.

Types:-

1. Hierarchical cluster analysis
2. Centroid based cluster analysis
3. Distribution based cluster analysis
4. Density based cluster analysis