**ASSIGNMENT-1**

**MACHINE LEARNING**

**1.(b)**

**2.(d)**

**3.(d)**

**4.(a)**

**5.(b)**

**6.(d)**

**7.(a)**

**8.(b)**

**9.(d)**

**10.(a)**

**11.(d)**

**12.(a)**

**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.

**14.** To measure the quality of a clustering, we can use the average silhouette coefficient value of all objects in the data set.

**15.** **Cluster analysis:**Cluster analysis is a data analysis technique that explores the naturally occurring groups within a data set known as clusters. Cluster analysis doesn't need to group data points into any predefined groups, which means that it is an unsupervised learning method. **There are 6 types of clustering algorithms in Machine learning**. They are as follows –(1) centroid-based, (2)density-based,(3)distribution-based, (4)hierarchical,(5) constraint-based, and (6)fuzzy clustering.