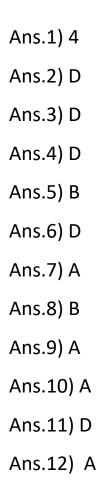
ASSIGNMENT 1- MACHINE LEARNING



Ans.13) Cluster analysis is a multivariate data mining technique whose goal is to groups objects 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, and it is used in many fields such as data compression, machine learning, pattern recognition, information retrieval etc. Following are the three basic steps of cluster analysis:

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

Ans.14) There is a separate "quality" function that measures the "goodness" of a cluster. The definitions of distance functions are usually very different for interval-scaled, boolean, categorical, and ordinal variables. Weights should be associated with different variables based on applications and data semantics. It is hard to define "similar enough" or "good enough".

Ans.15) Cluster analysis is a multivariate data mining technique whose goal is to groups objects (eg., products, respondents, or other entities) based on a set of user selected characteristics or attributes

Types of Clustering:

- Centroid-based Clustering.
- Density-based Clustering.
- Distribution-based Clustering.
- · Hierarchical Clustering.