

MACHINE LEARNING ASSIGNMENT – 3

Q.1) d

Q.2) d

Q.3) c

Q.4) b

Q.5) d

Q.6) c

Q.7) d

Q.8) a

Q.9) a

Q.10) b

Q.11) a

Q.12) b

Q.13) Importance of Clustering:

- 1) Clustering is used to gain important insights from data by observing what groups (or clusters) the data points fall into when they apply a clustering algorithm to the data.
- 2) Clustering can also be used for anomaly detection to find data points that are not part of any cluster, or outliers.
- 3) Clustering is used to identify groups of similar objects in datasets with two or more variable quantities. In practice, this data may be collected from marketing, biomedical, or geospatial databases, among many other places.

Q.14) There are two important elements in improving the quality of clustering:

- 1) improving the weights of the features in a document vector: A good weighting technique can promote the good features of an object.
- 2) Creating a more appropriate distance measure: An appropriate distance measure can help bring similar features together.