## Machine Learning Worksheet-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** Clustering is useful for exploring data. If there are many cases and no obvious groupings, clustering algorithms can be used to find natural groupings. Clustering can also serve as a useful data-preprocessing step to identify homogeneous groups on which to build supervised models.
- **Q.14** K-means clustering algorithm can be significantly improved by using a better initialization technique, and by repeating (re-starting) the algorithm. When the data has overlapping clusters, k-means can improve the results of the initialization technique.