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.