

**Worksheet set 3 ( ML ) Name: Prashant Pathak(Internship33)**

Ans.1 (d)

Ans.2 (d)

Ans.3 (c)

Ans.4 (b)

Ans.5 (d)

Ans.6 (c)

Ans.7 (d)

Ans.8 (a)

Ans.9 (a)

Ans.10 (b)

Ans.11 (a)

Ans.12 (b)

Ans.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.

Ans.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.