

1. A
2. D
3. A
4. A
5. B
6. B
7. A
8. D
9. A
10. D
11. D

12. The K-means clustering algorithm is sensitive to outliers because a mean is easily influenced by extreme values. Even because of a single outlier the mean of the cluster is affected significantly and out of all K methods, the k-mean is most affected by outliers.

13. K-means has the following advantages over other methods:

- It is relatively simple to implement compared to other methods.
- It can handle large data sets
- It guarantees convergence
- No need of defining the centroids initially as they are randomly chosen
- It is easily adaptable
- It can be used on clusters of different shapes and sizes.
- Gives good results

14. In a deterministic algorithm the output for a given input is always the same whereas in the non-deterministic algorithm for the same input we may get different outputs each time the compiler runs. The k-means is non-deterministic in nature because of its selection of random data points as initial centroid.