Macine Learning Assignment-2

1. 1 and 2

2. d) 1, 2 and 4

3. a)True

4. i)Capping and flooring of variables

5. b) 1

6. b) No

7. a)Yes

8. d) All of the above

9. a)K-means clustering algorithm

10. d) All of the above

11.d) All of the above

12. Is K sensitive to outliers?

ANS – Yes, K means algorithms are sensitive to outliers, because it determined by the mean and this value of mean may be affected by any outlier, it is easily influenced by by exreme values. Since this algorithm is about finding the the mean of all clusters, it is affected

13. Why is K means better?

Ans –

1. Because this is very usefull unsupervised machine learning algorithm. If our data has no labels It will still cluster our data successfully.
2. It returns clusters which can be easily interpreted and visualized.
3. This algorithm can be used with large datasets.
4. It is relatively simple to implement
5. It can be easily adapts with new exaamples.

14 Is K means a deterministic algorithm?

Ans- As K means selects random data points as initial centroids it is a non deterministic algorithm, Because whenever we run this algorithm with same data every time it might returns different outputs.