ASSIGNMENT – 2

MACHINE LEARNING

Q1 to Q11 answer.

Q1 Ans d) 2 and 3

Q2 d) 1,2 & 4

Q3 a) True

Q4 a) 1 only

Q5 b) 1

Q6 b) no

Q7 a) yes

Q8 d) all of the above

Q9 a) K-means clustering algorithm

Q10 d) all of the above

Q12 to Q14

12. Is K sensitive to outliers?

Ans :

Yes. k-means can be quite sensitive to outliers in your data set. The reason is simply that k- means tries to optimize the sum of squares. And thus a large deviation (such as of an outlier) gets a lot of weight.

13. Why is K means better?

K-Means Advantages : 1) If variables are huge, then K-Means most of the times computationally faster than hierarchical clustering, if we keep k smalls. 2) K-Means produce tighter clusters than hierarchical clustering, especially if the clusters are globular.

14. Is K means a deterministic algorithm

The basic k-means clustering is based on a non-deterministic algorithm. This means that running the algorithm several times on the same data, could give different results.