MACHINE LEARNING

Ans.1. ii) Clustering

2. d) 1, 2 and 4

3.true

4. i) Capping and flooring of variables.

5. **(b)**At least a single variable is required to perform clustering analysis

6.(B) NO

7.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. K-means can be used as outlier detection. BUT, more attention needs to be given for the definition of outliers. In K-means, using the symmetric distance measure is the key component to define the samples that belonging to the same cluster. symmetric distance measurement gives similar weight to each dimension (feature) this may not always be the case for defining outliers.

13. K-means is the simplest. To implement and to run. All you need to do is choose "k" and run it a number of times.

Most more clever algorithms (in particular the good ones) are much harder to implement efficiently (you'll see factors of 100x in runtime differences) and have much more parameters to set.

14. 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. However, to ensure consistent results, FCS Express performs *k*-means clustering using a deterministic method.

WORKSHEET 2 SQL

1. Unique.

2. Null

3. A) Each entry in the primary key uniquely identifies each entry or row in the table.

4. A) There should not be any duplicate entries.

5. D) All of them.

6. (b) 3

7. one to many

8. many to one

9. B) supplier id.

10.2

11. One to one

12. Table.

13. Insert into

14. B) Unique

15. B) A blood group can only contain characters

. A blood group can contain one of the following values - A, B, AB and O.

STATISTICS WORKSHEET-2

1. mean

2. 12.

3. C) The square root of the variance.

4. C) Both of these.

5. D) All of these.

6. B) Data set.

7. C) 1.

8. Scatterplot

9. D) Analysis of variance

10. A) Z-score

11. C) mean.

12. D) 400005.2.

13. Mean.

14. A) Descriptive and inferences.

15. D) H-L.