Machine Learning Solutions

1. a) 2 only
2. d) 1,2 and 4
3. a) True
4. a) 1 only
5. b) 1
6. b) No
7. a) Yes
8. d) All of the above
9. d) 1 and 3
10. a) K Means Clustering Algorithm
11. d) All of the above
12. d) All of the above
13. Yes, K-Means Clustering Algorithm is sensitive to outliers as the algorithm updates the cluster centres by taking an average of all data points that are closer to the cluster. With an outlier, the cluster center will move toward the outlier.
14. k-means is one of the simplest algorithms which uses unsupervised learning method to solve known clustering issues.Other clustering algorithms with better features tend to be more expensive. In this case, k-means becomes a great solution for pre-clustering, reducing the space into disjoint smaller sub-spaces where other clustering algorithms can be applied.
15. No, K-Means is a non deterministic algorithm which means that running the algorithm several times on the same data, could give us different results. The non-deterministic nature of K-Means is due to its random selection of data points as initial centroids. The key idea of the algorithm is to select data points which belong to dense regions and which are adequately separated in feature space as the initial centroids.

Statistics Worksheet Solution

1. c) Both
2. c) 12
3. d) All of the above
4. b) Mutually Exclusive
5. b) Summarzing and explaining a specific set of data
6. b) data set
7. a) 2 or more
8. b) Scatterplot
9. d) Analysis of Variance (ANOVA)
10. a) Z-Score
11. a) Mean
12. d) 400005.2
13. c) Median
14. a) Descriptive and inferences
15. d) H-L

SQL Worksheet Solution:

1. d) Unique
2. d) None of them
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. b) Foreign Key
6. d) 1
7. a) one to many
8. c) one to one
9. b) Supplier id
10. d) 2
11. b) many to one
12. c) Table
13. b) Update
14. B), C)
15. A)