Q1. Option B(1& 2),Which is Classification and Clustering.

Q2. Option D (1,2,& 4) Which is Regression, Classification and Reinforcement.

Q3. Option A (True.)

Q4. Option A(1. Only) which is capping & flouring of Variables.

Q5. Option B(1) one Variable at least.

Q6. Option B(No)

Q7. Option A(Yes)

Q8. All the Above.

Q9. Option A(K means Clustering)

Q10.Option D(All of the Above)

Q11.Option D (All of the above)

Q12.K means Algorithm updates the cluster center by taking the average of all the data points that are close to the cluster center, when all the points are close to each other they pack nicely together and their average make sense, but when you have outliers ,it will affect the whole average calculation, As a result they will push the cluster center closer to the outlier. Hence K mean clustering algorithms are more sensitive to the outliers.

Q13. K means clustering Advantages:

- Simple to implement
- Scales to Large Data Set.
- Guarantees convergence
- Can work well the centroids of the cluster.
- Easily Adapts to new examples.
- Generalize to clusters of different shapes and size.

Q14. K means clustering is a non-deterministic algorithm. Compiler cannot solve the problem in time and does not clearly know the next step. This algorithm uses only 2 steps

1. Guessing the step.
2. Assigning the step.

Every time when we ran the K-mean clustering algorithm ,it would give different results, the situation get worsened when you are unsure ,if any of the modifications to the k means, would improve the results.