**MACHINE LEARNING 2-WORKSHEET**

1. d. 2 and 3
2. e. 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
11. f. All of the above
12. e. All of the above

13. **Is K sensitive to outliers?**

* If it is related to K-mean clustering then it is sensitive to the outliers as the mean value can have strong effect on the outliers/extreme values. Also it is sensitive to the center cluster initialization. If there are outliers present it push the mean value or the center closer to the outliers, hence it is very sensitive.

14. **Why is K means better?**

* K-means clustering method can be vastly improved by using a better initialization technique, and by repeating the algorithm process. When the dataset has overlapping clusters, k-means can provide better results of the initialization technique.

15. **Is K means a deterministic algorithm?**

* K-means is deterministic except for initialization. We can initialize with the first k objects, then it is deterministic. The common k-means clustering is based on a non-deterministic algorithm. This means that running the algorithm multiple times on the same dataset, could give different outcomes. Although, to ensure consistent results, FCS Express performs k-means clustering using a deterministic method.