**MACHINE LEARNING – WORKSHEET 2**

**Subjective Question**

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

The **k** -means clustering algorithm is sensitive to outliers, because the average value is easily influenced by extreme values**.**

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

It’s better because it is faster, simple and easy to implement. If outliers are taken care of, then it gives a very good result. Also, because it is fast, a lot of randomized starting points can be used as centroids so that we reach a better conclusion after looking at a variety of local optima.

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

No,K-Means is of non-deteministic nature. K-Means starts with a random set of data points as initial centroids. This random selection influences the quality of the resulting clusters. Besides, each run of the algorithm for the same dataset may yield a different output.