Assignment-Machine Learning -2

Q1.) b

Q2.) b

Q3.) a

Q4.) b

Q5.) b

Q6.) a

Q7.) a

Q8.) d

Q9.) a

Q10.) a

Q11.) d

Q12.) The K-means clustering algorithm is sensitive to outliers, because a mean is easily influenced by extreme values.

Q13.) K-means Guarantees convergence. Can warm-start the positions of centroids. Easily adapts to new examples. Generalizes to clusters of different shapes and sizes, such as elliptical clusters. K-means clustering is a form of unsupervised learning, which means that it does not require training data. K-means clustering is also a much faster algorithm than k-NN clustering.

Q14.) 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.