MACHINE LEARNING

1. d. All of the above

2. d. None

3. c. Reinforcement learning and Unsupervised learning

4. b. The tree representing how close the data points are to each other

5. d. None

6. c. k-nearest neighbour is same as k-means

7. d. 1, 2 and 3

8. a. 1 only

9. b. 4

10. b.Given a database of information about your users, automatically group them into different market segments.

    c. Predicting whether stock price of a company will increase tomorrow.

11. a

12. b

13. importance of clustering:

- Having clustering methods helps in restarting the local search procedure and remove the inefficiency. In addition, clustering helps to determine the internal structure of the data.

- This clustering analysis has been used for model analysis, vector region of attraction.

- Clustering helps in understanding the natural grouping in a dataset. Their purpose is to make sense to partition the data into some group of logical groupings.

- Clustering quality depends on the methods and the identification of hidden patterns.

- They play a wide role in applications like marketing economic research and weblogs to identify similarity measures, Image processing, and spatial research.

- They are used in outlier detections to detect credit card fraudulence.

14. clustering performance can be increased by:

- Applying unsupervised feature learning to input data using either reconstruction cost ICA (RICA) and sparse filterin (SFT), improves clustering performance.

- Surprisingly for some cases, high clustering

performance can be achieved by simply performing K-means clustering on the Independent Component Analysis components after principal component analysis dimension reduction on the input data.

- Graph-based clustering performance can easily be improved by applying Independent Component Analysis(ICA) blind source separation during the graph Laplacian embedding step.