MACHINE LEARNING

1. Which of the following is an application of clustering?

Ans) d. All of the above

2. On which data type, we cannot perform cluster analysis?

Ans)d. None

3.Netflix's movie recommendation system uses

Ans)c. Reinforcement learning and Unsupervised learning

4. The final output of Hierarchical clustering is

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

5. Which of the step is not required for K-means clustering?

Ans)d. None

6. Which is the following is wrong?

Ans)c. k-nearest neighbour is same as k-means

7. Which of the following metrics, do we have for finding dissimilarity between two clusters in hierarchical clustering?

Ans)d. 1, 2 and 3

8. Which of the following are true?

Ans)a. 1 only

9. In the figure above, if you draw a horizontal line on y-axis for y=2. What will be the number of clusters formed?

Ans)a. 2

10. For which of the following tasks might clustering be a suitable approach?

Ans)a.Given sales data from a large number of products in a supermarket, estimate future sales for each of these products

11. Given, six points with the following attributes:

Ans)a

12. Given, six points with the following attributes

Ans)b

13. What is the importance of clustering?

It can be used to characterize & discover customer segments for marketing purposes. And for classification among different species of plants and animals. By learning the earthquake- affected areas we can determine the dangerous zones.

14. How can I improve my clustering performance

By performing the visualization and instead of random initialization, we choose only the first center randomly. with a probability that is proportional to their squared distance from all current centers. Points further away from current centers get a higher probability to become a center in the next iteration of initialization.