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

d. All of the above

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

d. None

3. Netflix's movie recommendation system uses

c. Reinforcement learning and Unsupervised learning

4. The final output of Hierarchical clustering is

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?

d. None

6. Which is the following is wrong?

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?

d. 1, 2 and 3

8. Which of the following are true?

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?

a. 2

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

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

11. Given, six points with the following attributes:

a)

12. Given, six points with the following attributes:

b)

13. What is the importance of clustering?

1. 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.
2. This clustering analysis has been used for model analysis, vector region of attraction.
3. 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.
4. Clustering quality depends on the methods and the identification of hidden patterns.
5. They play a wide role in applications like marketing economic research and weblogs to identify similarity measures, Image processing, and spatial research.
6. They are used in outlier detections to detect credit card fraudulence.

14. How can I improve my clustering performance?

There are two important elements in improving the quality of clustering: improving the weights of the features in a document vector and creating a more appropriate distance measure. A good weighting technique can promote the good features of an object, and an appropriate distance measure can help bring similar features together.