Machine Learning

Q.1) D

Q.2) D

Q.3) C

Q.4) B

Q.5) D

Q.6) C

Q.7) D

Q.8) A

Q.9) A

Q.10) B

Q.11) A

Q.12) B

Q.13) Importance of Clustering:

The use of clustering is to extract valuable inferences from many unstructured datasets. It helps us to organize the data. It allow you to take a sweeping glance at your data and then form some logical structures based on what you find there before going deeper into the nuts and bolts analysis. It makes easier in creating new machine learning methods. It helps to gain important insights from the data by observing what groups the data points fall into when they apply a clustering algorithm to the data. It is a significant component of machine learning.

Q.14) Improving clustering performance:

- Graph-based clustering performance can easily be improved by applying ICA blind source separation during the graph Laplacian embedding step.
- Applying unsupervised feature learning to inpute data using RICA or SFT, improves clustering performance.
- High clustering performance can be achieved by simply performing K-means clustering on the ICA components after PCA dimension reduction on the input data. However, the number of PCA and ICA signals needs to be limited to the number of unique classes.