# COMP4433 Quiz 4

Deadline to submit your answers: 3:30pm 7 Nov 2023

Hi, Fu Lai Korris. When you submit this form, the owner will see your name and email address.

1. Which of the following statements about k-means clustering is true? Pick the best answer.

   ○ k-means is sensitive to the order of input data records

   ○ k-means is NOT sensitive to initialization

   ● k-means is sensitive to parameter k

   ○ None of the above

   > The mean operation and nearest seed point computation are not sensitive to the order of input data records. The performance of k-means depends on parameter k.

2. Which of the following statements about clustering is true? Pick the best answer.

   ● k-means is faster than single linkage hierarchical clustering

   ○ Single linkage hierarchical clustering is faster than complete linkage hierarchical clustering

   ○ The execution of single linkage hierarchical clustering needs to know the number of clusters to be formed.

   ○ All of the above

   ○ None of the above

   > The speed of single linkage method is the same as that of complete linkage method. It does not require the specification of the number of cluster.

3. Which of the following statements about density based clustering is true? Pick the best answer.

   ○ Density based clustering like DBSCAN guarantees the maximization of intra-cluster similarity as well as the minimization of inter-cluster similarity

   ○ Density based clustering like DBSCAN can only be applied to 2D data

   ○ Density based clustering like DBSCAN can directly control the number of clusters to be found

   ● None of the above

   > All are false. DBSCAN can only control the number of clusters in a trial-and-error manner.

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1. Which of the following statements about k-means clustering is true? Pick the best answer.

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- 🔴 None of the above 4

2. Which of the following statements about clustering is true? Pick the best answer.

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- 🔴 All of the above 2
- 🟣 None of the above 36

3. Which of the following statements about density based clustering is true? Pick the best answer.

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- 🔴 None of the above 95