Assignment 12

See on 2018-11-10, 20:59 CET.

Unit 14 - Week 12

Module 12: Assignment 12

1. Which of the following could be a possible input string for a number whose trailing digit is 5?
   a) 15
   b) 15.5
   c) 15.05
   d) 15.055

2. Which of the following is an example of a congruence transformation?
   a) Reflection
   b) Rotation
   c) Translation
   d) Dilation

3. Which of the following is a global answer-checking algorithm?
   a) Euclidean algorithm
   b) Greedy algorithm
   c) Kruskal's algorithm
   d) Dijkstra's algorithm

4. Which of the following is an example of a greedy algorithm?
   a) Euclidean algorithm
   b) Greedy algorithm
   c) Kruskal's algorithm
   d) Dijkstra's algorithm

5. Which of the following is a location clustering algorithm?
   a) K-means clustering
   b) Hierarchical clustering
   c) DBSCAN
   d) Model-based clustering

6. Consider the graph below. Which of the following are in the $K_5$ of the given graph?

   a) $K_{2,3}$
   b) $K_{3,2}$
   c) $K_{4,1}$
   d) $K_{5,0}$

7. Which of the following is a possible input string for the following output matrix with a threshold of 0.5, where $A_t$ is the threshold:

   $A = \begin{pmatrix}
   1 & 1 & 0 \\
   0 & 1 & 1 \\
   1 & 1 & 0
   \end{pmatrix}$

   a) $A_t = 0.5$
   b) $A_t = 0.7$
   c) $A_t = 0.3$
   d) $A_t = 0.9$

8. Which of the following is a possible input string for the following output matrix with a threshold of 0.5, where $A_t$ is the threshold:

   $A = \begin{pmatrix}
   1 & 0 & 1 \\
   0 & 1 & 0 \\
   1 & 0 & 1
   \end{pmatrix}$

   a) $A_t = 0.5$
   b) $A_t = 0.7$
   c) $A_t = 0.3$
   d) $A_t = 0.9$

9. Which of the following is a possible input string for the following output matrix with a threshold of 0.5, where $A_t$ is the threshold:

   $A = \begin{pmatrix}
   1 & 0 & 1 \\
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   \end{pmatrix}$

   a) $A_t = 0.5$
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   c) $A_t = 0.3$
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10. Which of the following is a possible input string for the following output matrix with a threshold of 0.5, where $A_t$ is the threshold:

    $A = \begin{pmatrix}
    1 & 0 & 1 \\
    0 & 1 & 0 \\
    1 & 0 & 1
    \end{pmatrix}$

    a) $A_t = 0.5$
    b) $A_t = 0.7$
    c) $A_t = 0.3$
    d) $A_t = 0.9$

11. Which of the following statements about the nature of inputs are correct?

    a) The nature of inputs is random in nature.
    b) The nature of inputs is deterministic in nature.
    c) The nature of inputs can be both random and deterministic.
    d) The nature of inputs is irreducible.

12. Which of the following is an example of a classification algorithm?

    a) K-means clustering
    b) Hierarchical clustering
    c) DBSCAN
    d) Model-based clustering

13. Which of the following is an example of a clustering algorithm?

    a) K-means clustering
    b) Hierarchical clustering
    c) DBSCAN
    d) Model-based clustering

14. Which of the following is an example of a clustering algorithm?

    a) K-means clustering
    b) Hierarchical clustering
    c) DBSCAN
    d) Model-based clustering

15. Which of the following is an example of a clustering algorithm?

    a) K-means clustering
    b) Hierarchical clustering
    c) DBSCAN
    d) Model-based clustering