

# CS502 QUIZ 2

WhatsApp Group: [Learning With Scorpio #3](#)

WhatsApp Group: [Learning With Scorpio #4](#)

Question # 2 of 10 ( Start time: 11:06:39 AM, 03 March 2022 )

Forward edge is:

Select the correct option

- |                       |   |
|-----------------------|---|
| <input type="radio"/> | (u, v) where u is a proper ancestor of v in the tree.   |
| <input type="radio"/> | (u, v) where v is a proper ancestor of u in the tree.   |
| <input type="radio"/> | (u, v) where u is a proper descendent of v in the tree. |
| <input type="radio"/> | (u, v) where v is a proper descendent of u in the tree. |
- Correct  
Solved By: [Scorpio](#)

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Question # 1 of 10 ( Start time: 11:06:00 AM, 03 March 2022 )

In Kruskal's algorithm, the next \_\_\_\_\_ is not added to viable set A, if its adding induce a/an cycle.

Select the correct option

- |                       |        |
|-----------------------|--------|
| <input type="radio"/> | Vertex |
| <input type="radio"/> | Cycle  |
| <input type="radio"/> | Tree   |
| <input type="radio"/> | Edge   |
- Correct  
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Question # 4 of 10 ( Start time: 11:07:45 AM, 03 March 2022 )

Digraphs \_\_\_\_\_ in communication and transportation networks.

Select the correct option

<input type="radio"/>	are not used
<input type="radio"/>	final value is used
<input type="radio"/>	are used
<input type="radio"/>	parts are used

Correct  
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Question # 3 of 10 ( Start time: 11:07:11 AM, 03 March 2022 )

Kruskal's algorithm works by adding \_\_\_\_\_ in increasing order of weight (lightest edge first).

Select the correct option

<input type="radio"/>	Weights
<input type="radio"/>	Trees
<input type="radio"/>	Edges
<input type="radio"/>	Vertices

Correct  
Solved By: [Scorpio](#)

Question # 5 of 10 ( Start time: 11:08:00 AM, 03 March 2022 )

In Timestamped DFS-cycles lemma, if edge  $(u, v)$  is a back edge, then \_\_\_\_\_

Select the correct option

<input type="radio"/>	$f[u] < f[v]$
<input type="radio"/>	$f[u] \geq f[v]$
<input type="radio"/>	$f[u] > f[v]$
<input type="radio"/>	Correct Solved By: <a href="#">Scorpio</a> $f[u] \leq f[v]$

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Question # 6 of 10 ( Start time: 11:08:17 AM, 03 March 2022 )

In \_\_\_\_\_ algorithm(s), at any time, the subset of edges  $A$  forms a single tree.

Select the correct option

<input type="radio"/>	Prim's Correct Solved By: <a href="#">Scorpio</a>
<input type="radio"/>	kruskal's and Prim's
<input type="radio"/>	BFS
<input type="radio"/>	Kruskal's

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Question # 7 of 10 ( Start time: 11:08:36 AM, 03 March 2022 )

\_\_\_\_\_ components are not affected by reversal of all edges in terms of vertices reachability.

Select the correct option

- |                       |                    |   |
|-----------------------|--------------------|---|
| <input type="radio"/> | Strongly connected | <b>Correct</b><br>Solved By: <u>Scorpio</u> |
| <input type="radio"/> | First two          |   |
| <input type="radio"/> | Weakly connected   |   |
| <input type="radio"/> | Last two           |   |

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Question # 8 of 10 ( Start time: 11:09:06 AM, 03 March 2022 )

For \_\_\_\_\_ graphs, there is no distinction between forward and back edges.

Select the correct option

- |                       |            |   |
|-----------------------|------------|---|
| <input type="radio"/> | directed   |   |
| <input type="radio"/> | large      |   |
| <input type="radio"/> | small      |   |
| <input type="radio"/> | undirected | <b>Correct</b><br>Solved By: <u>Scorpio</u> |

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Question # 9 of 10 ( Start time: 11:09:24 AM, 03 March 2022 )

By breaking any edge on a cycle created in free tree, the free \_\_\_\_\_ is restored.

Select the correct option

- |                                  |   |
|----------------------------------|---|
| <input type="radio"/>            | Vertex  |
| <input checked="" type="radio"/> | Tree <b>Correct</b><br>Solved By: <a href="#">Scorpio</a> |
| <input type="radio"/>            | Edge  |
| <input type="radio"/>            | Cycle   |

Question # 10 of 10 ( Start time: 11:09:46 AM, 03 March 2022 )

The process of updating estimates in Dijkstra's algorithm is called \_\_\_\_\_.

Select the correct option

- |                                  |   |
|----------------------------------|---|
| <input checked="" type="radio"/> | Relaxation <b>Correct</b><br>Solved By: <a href="#">Scorpio</a> |
| <input type="radio"/>            | Updating  |
| <input type="radio"/>            | Amendment   |
| <input type="radio"/>            | Insertion   |