# Learning4help by Waqas

Asslam-o-Alaikum! In this file we'll provide you CS502 quiz 3 2023 Important Finalterm MCQs. Must Prepare Before Finalterm Exams. Verify Answers yourself too. If you found mistake then inform me.

If you found mistake then let us know.

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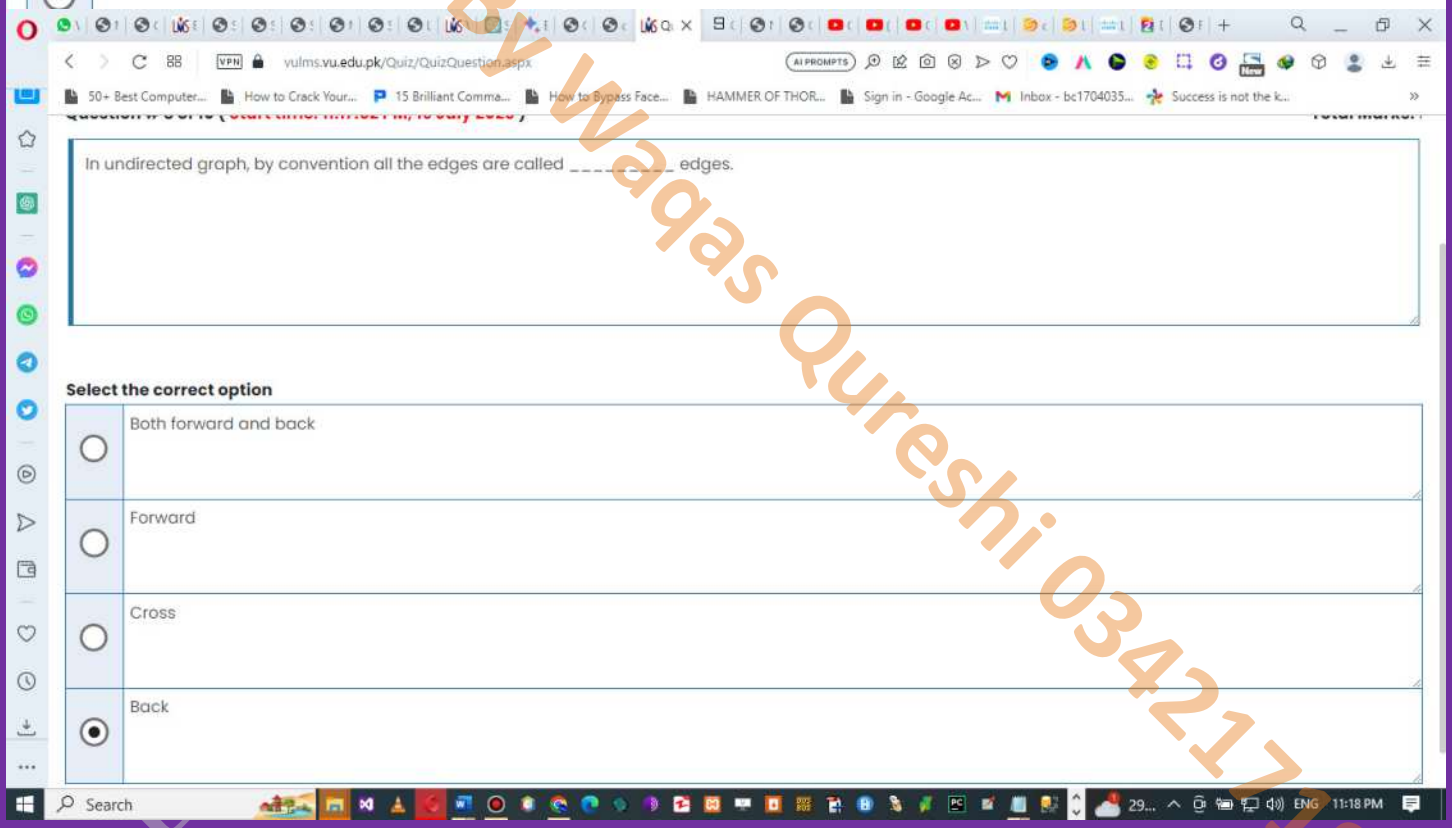
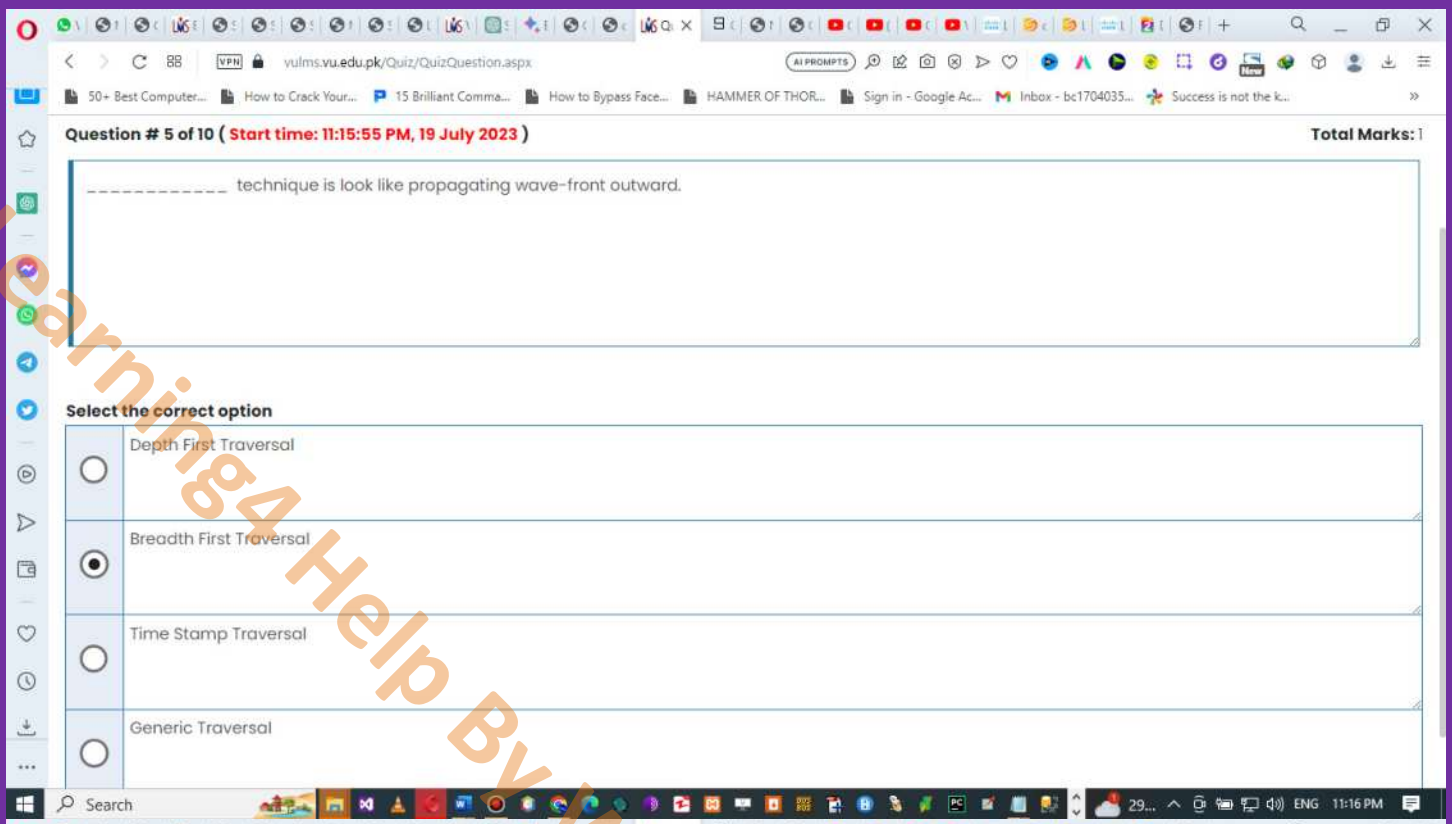
Question # 3 of 10 ( Start time: 11:13:37 PM, 19 July 2023 )

The component digraph is necessarily _____.

Select the correct option

- (●) acyclic
- ( ) straight
- ( ) cyclic
- ( ) strong



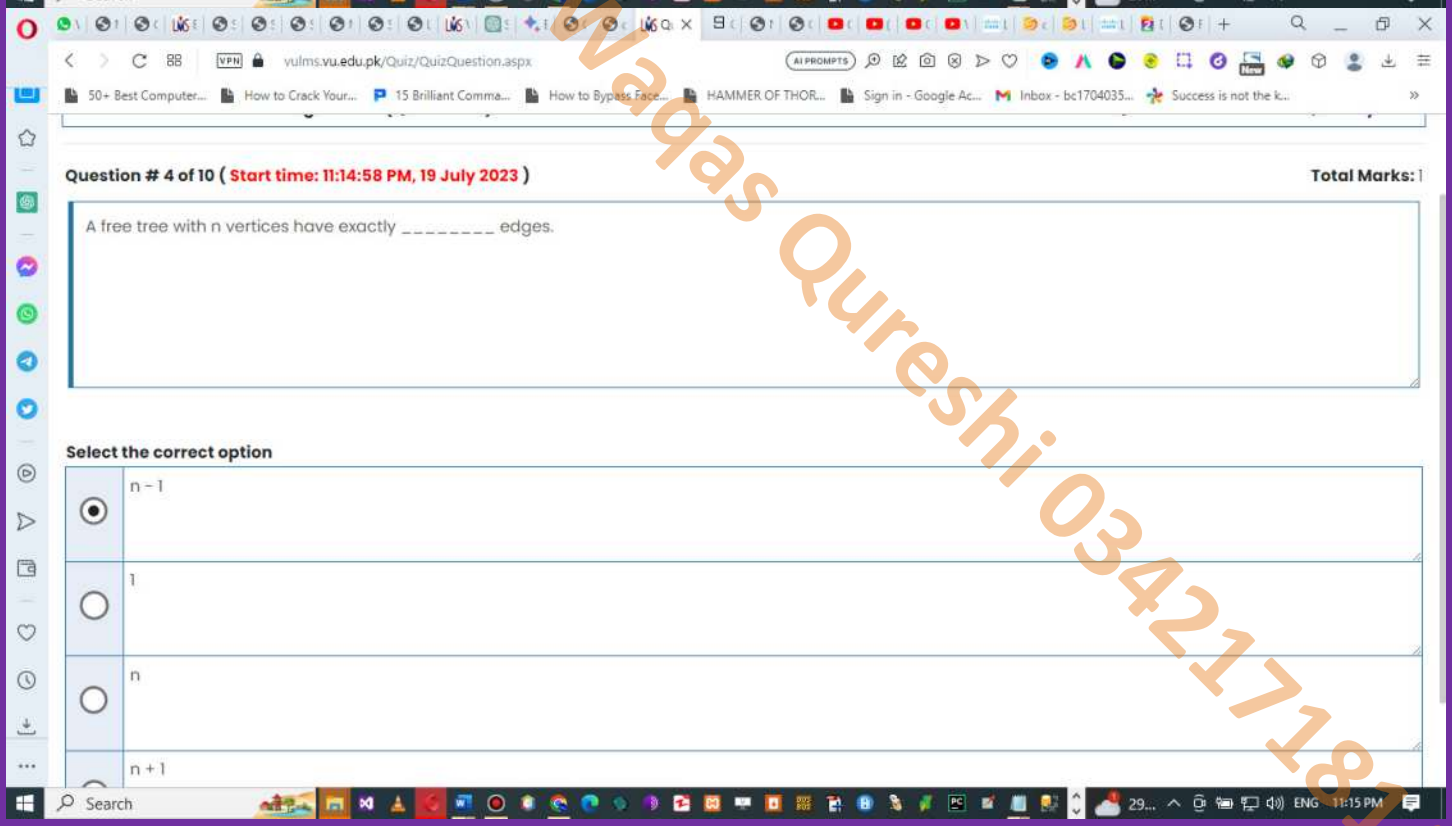


**Question # 5 of 10 ( Start time: 11:15:55 PM, 19 July 2023 )** **Total Marks:** 1

_____ technique is look like propagating wave-front outward.

**Select the correct option**

- ○ Depth First Traversal
- ◉ Breadth First Traversal
- ○ Time Stamp Traversal
- ○ Generic Traversal

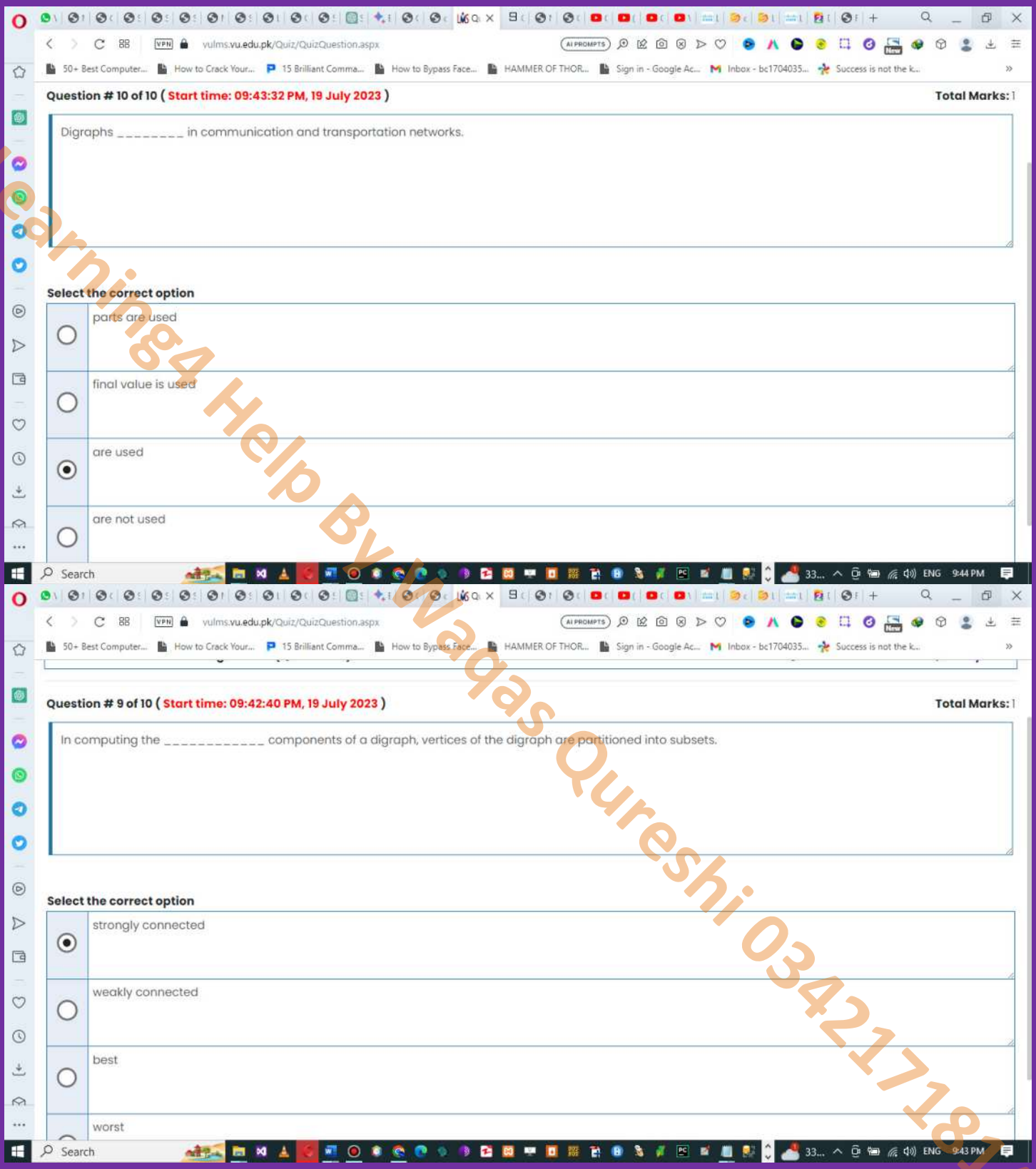


**Question # 4 of 10 ( Start time: 11:14:58 PM, 19 July 2023 )** **Total Marks:** 1

A free tree with n vertices have exactly _____ edges.

**Select the correct option**

- ◉ n - 1
- ○ 1
- ○ n
- ○ n + 1



Question # 10 of 10 ( Start time: 09:43:32 PM, 19 July 2023 ) Total Marks: 1

Digraphs _____ in communication and transportation networks.

Select the correct option

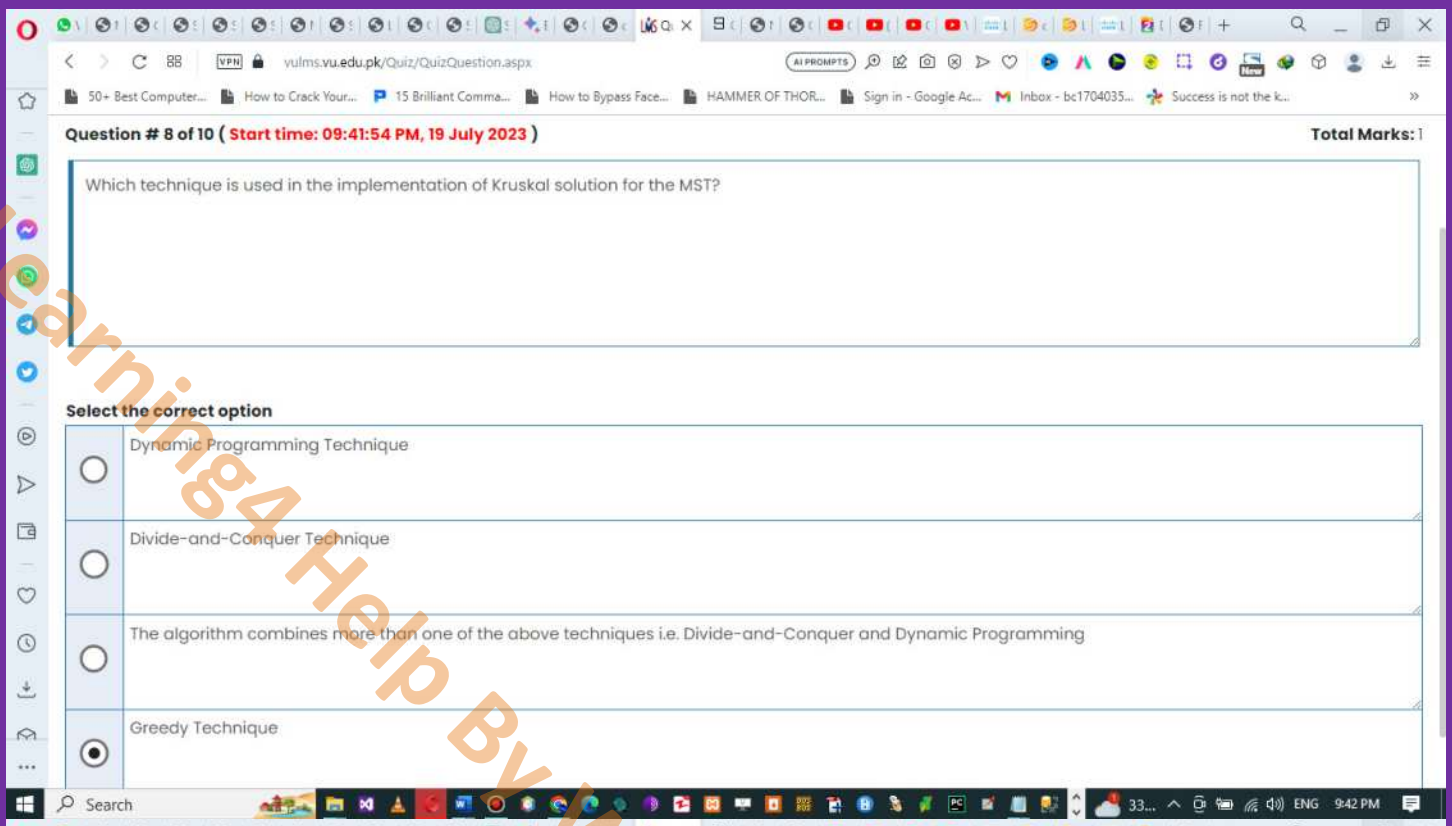
- parts are used
- final value is used
- are used
- are not used

Question # 9 of 10 ( Start time: 09:42:40 PM, 19 July 2023 ) Total Marks: 1

In computing the _____ components of a digraph, vertices of the digraph are partitioned into subsets.

Select the correct option

- strongly connected
- weakly connected
- best
- worst

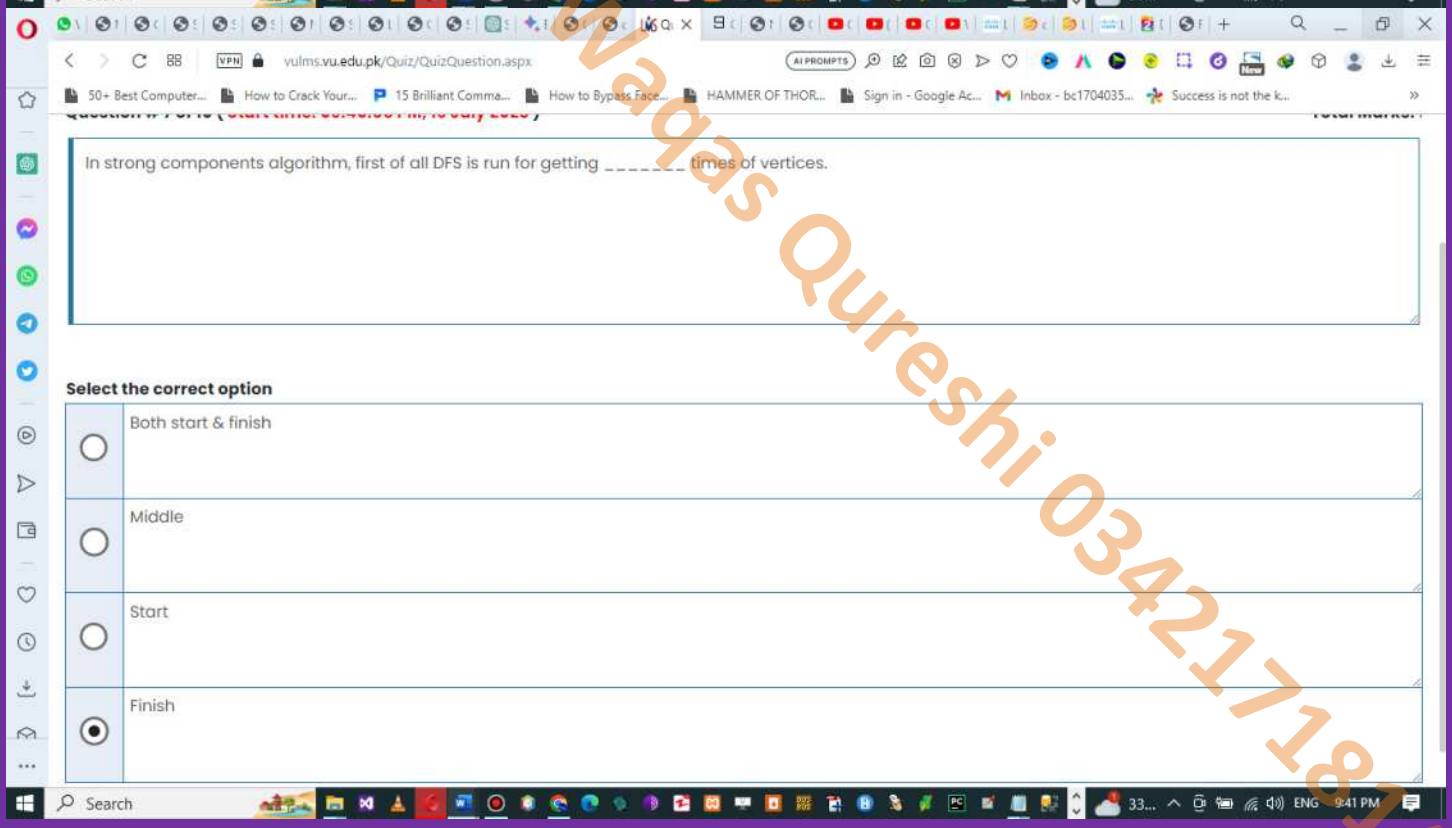


**Question # 8 of 10 ( Start time: 09:41:54 PM, 19 July 2023 )** **Total Marks:** 1

Which technique is used in the implementation of Kruskal solution for the MST?

**Select the correct option**

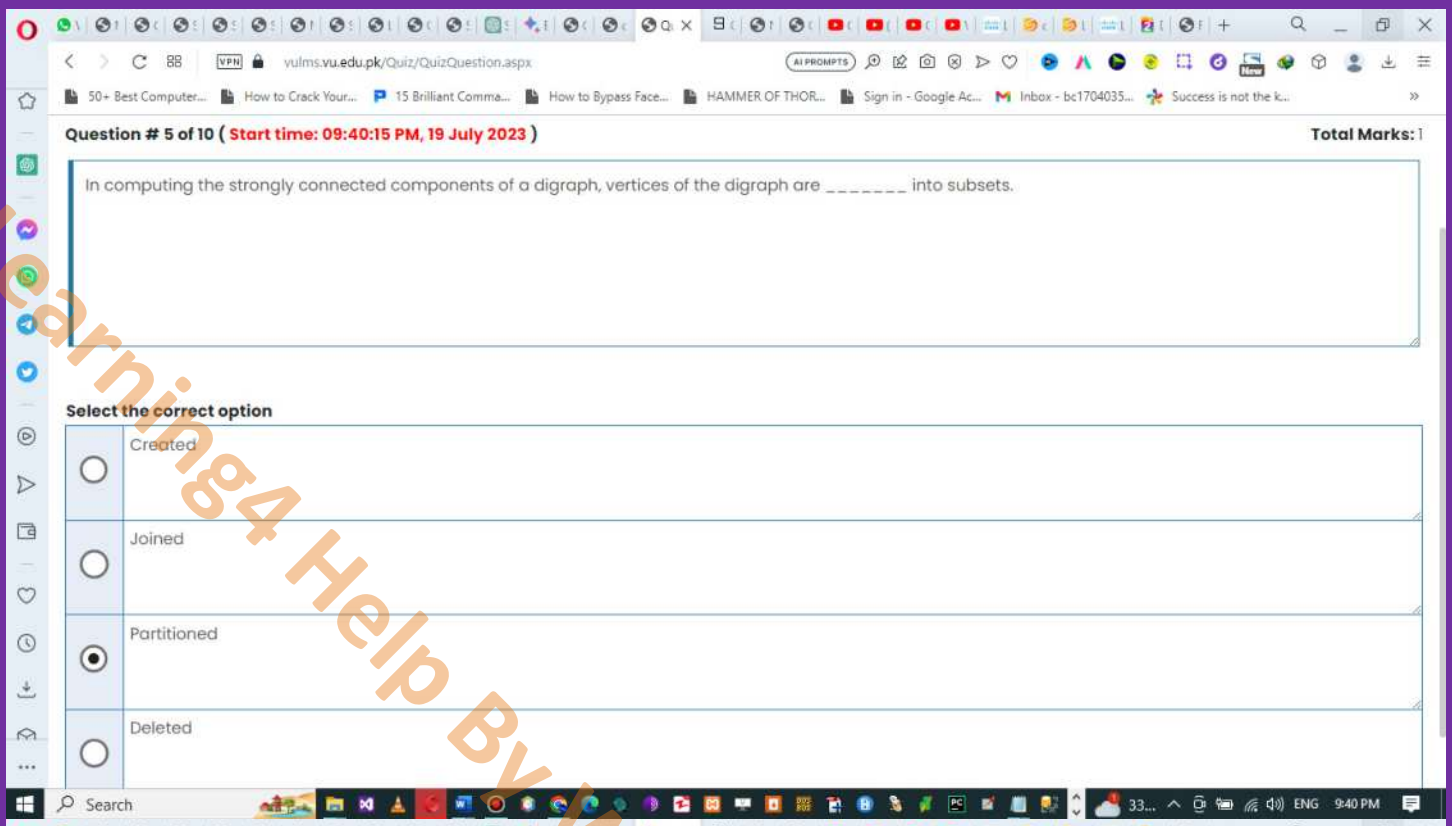
- ○ Dynamic Programming Technique
- ○ Divide-and-Conquer Technique
- ○ The algorithm combines more than one of the above techniques i.e. Divide-and-Conquer and Dynamic Programming
- ◉ Greedy Technique



In strong components algorithm, first of all DFS is run for getting _____ times of vertices.

**Select the correct option**

- ○ Both start & finish
- ○ Middle
- ○ Start
- ◉ Finish

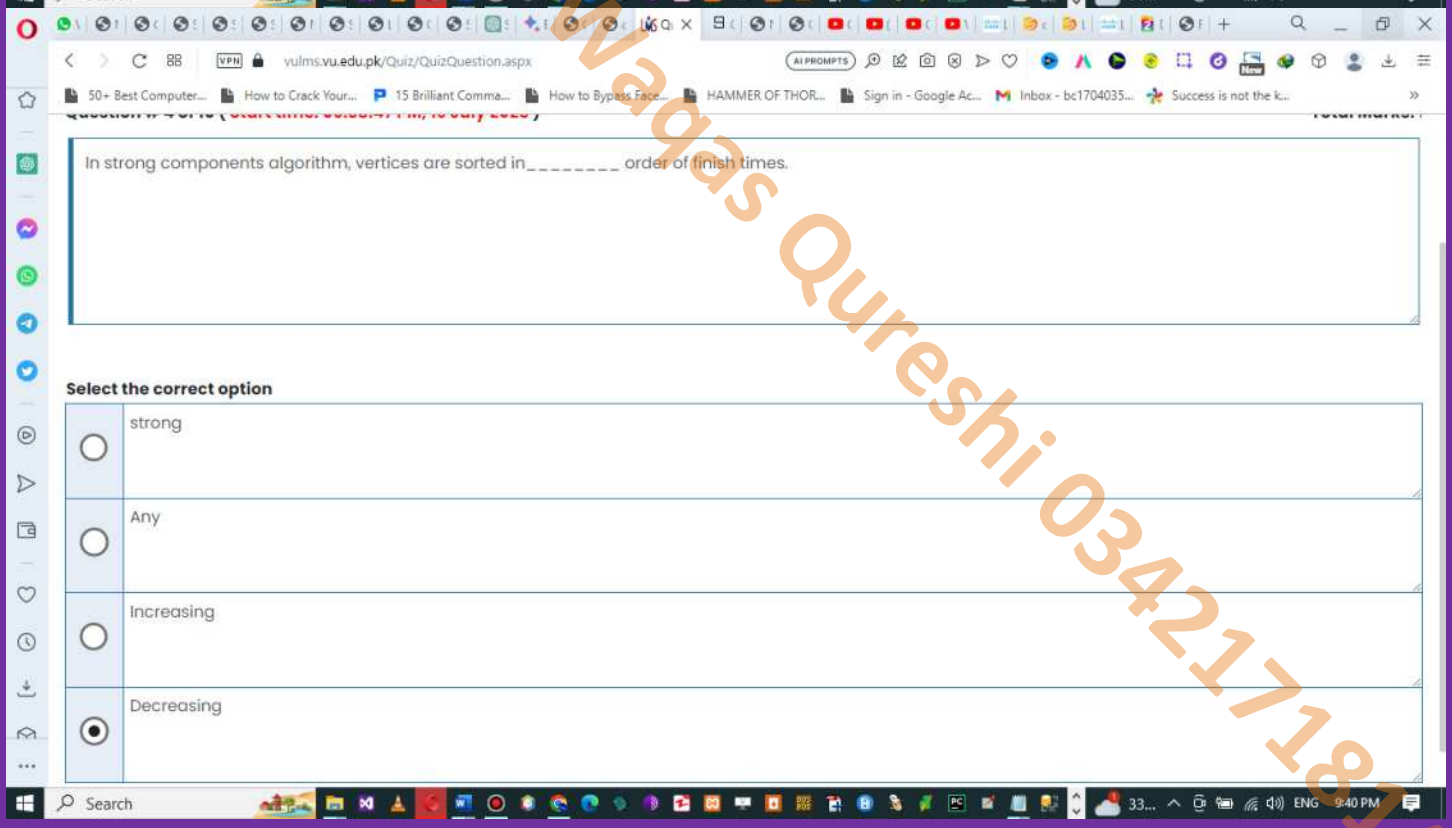


Question # 5 of 10 ( Start time: 09:40:15 PM, 19 July 2023 ) Total Marks: 1

In computing the strongly connected components of a digraph, vertices of the digraph are _____ into subsets.

Select the correct option

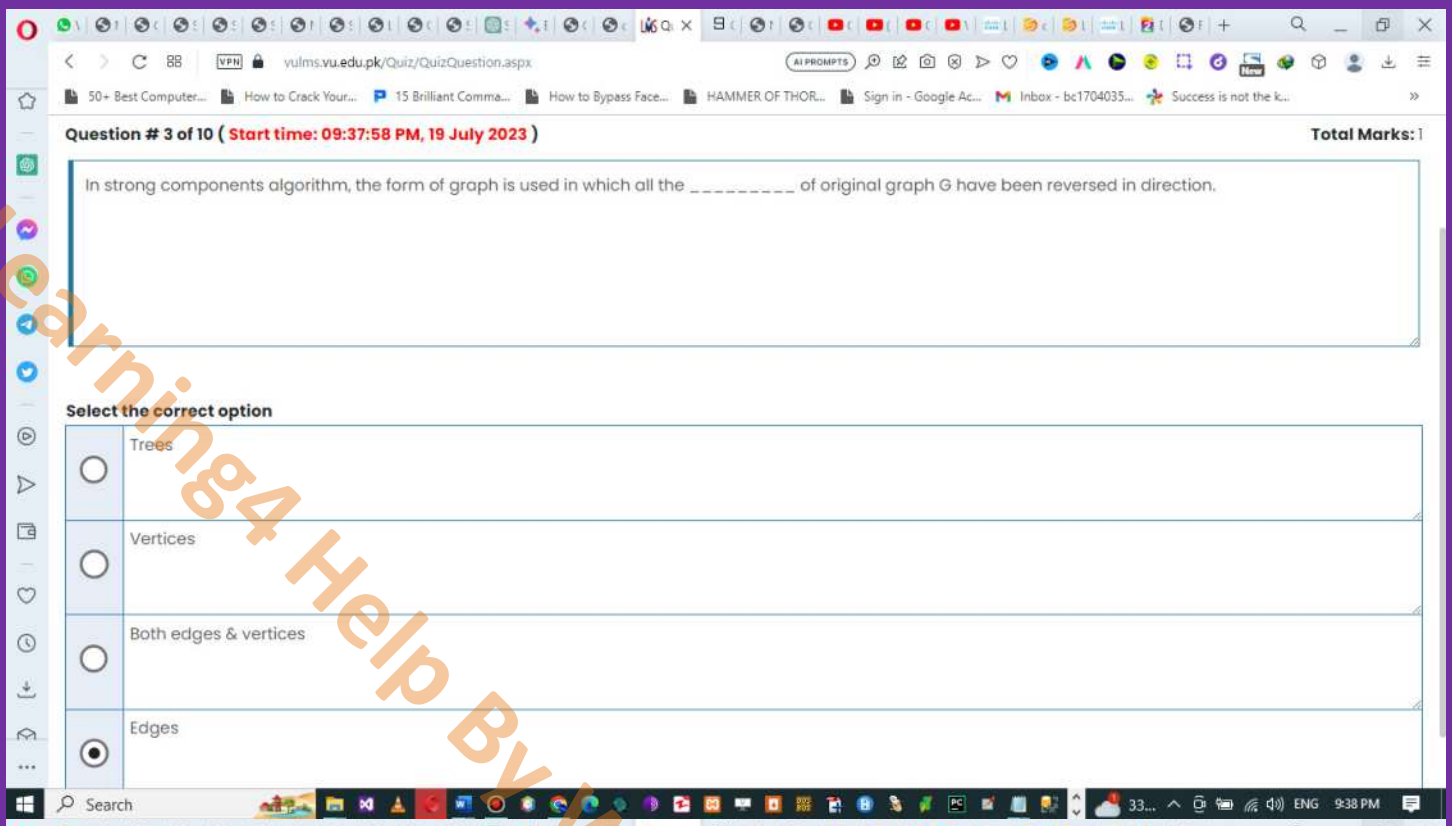
- Created
- Joined
- Partitioned
- Deleted



In strong components algorithm, vertices are sorted in_____ order of finish times.

Select the correct option

- strong
- Any
- Increasing
- Decreasing

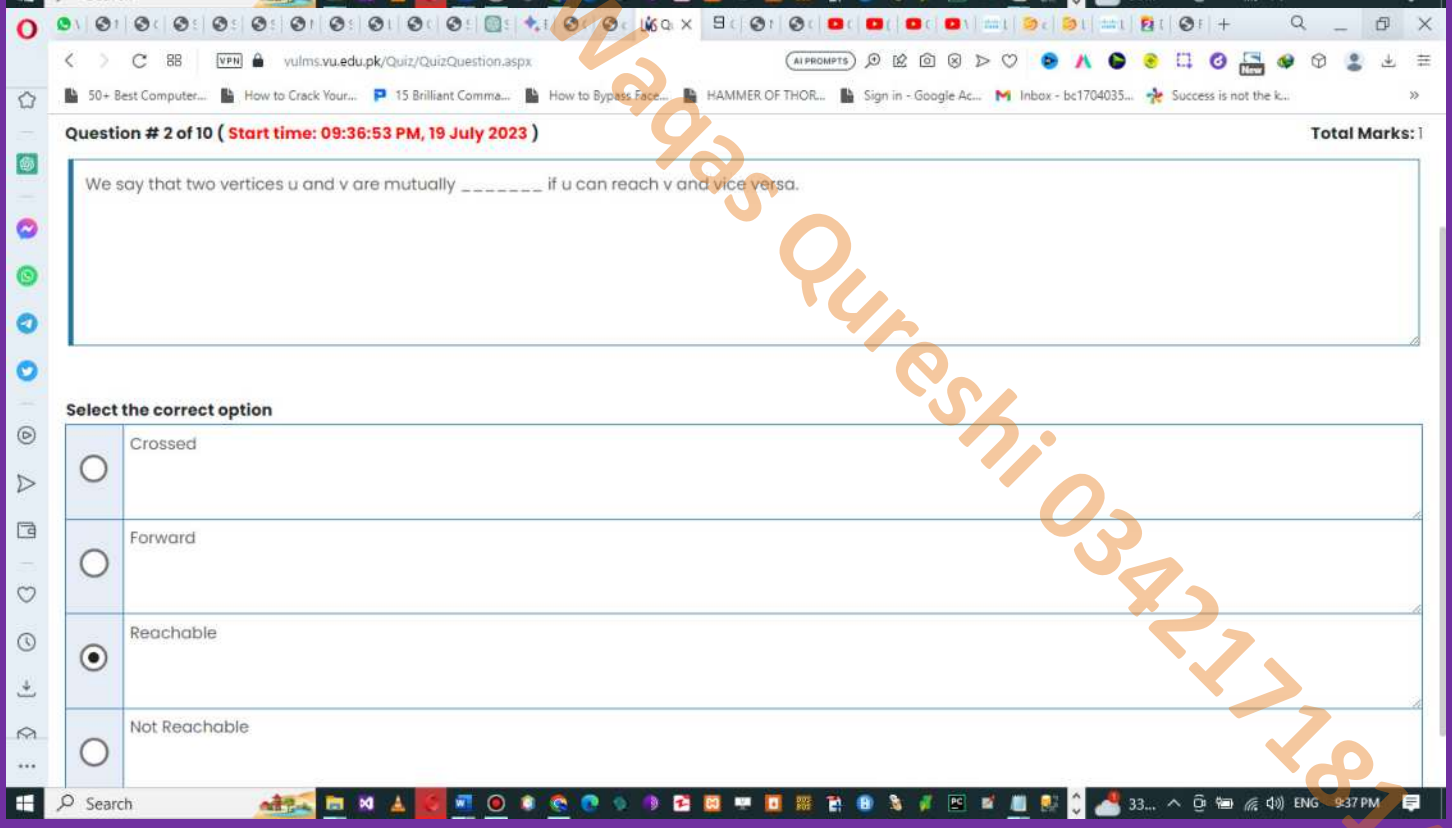


**Question # 3 of 10 ( Start time: 09:37:58 PM, 19 July 2023 )** **Total Marks:** 1

In strong components algorithm, the form of graph is used in which all the _____ of original graph G have been reversed in direction.

**Select the correct option**

- ○ Trees
- ○ Vertices
- ○ Both edges & vertices
- ◉ Edges

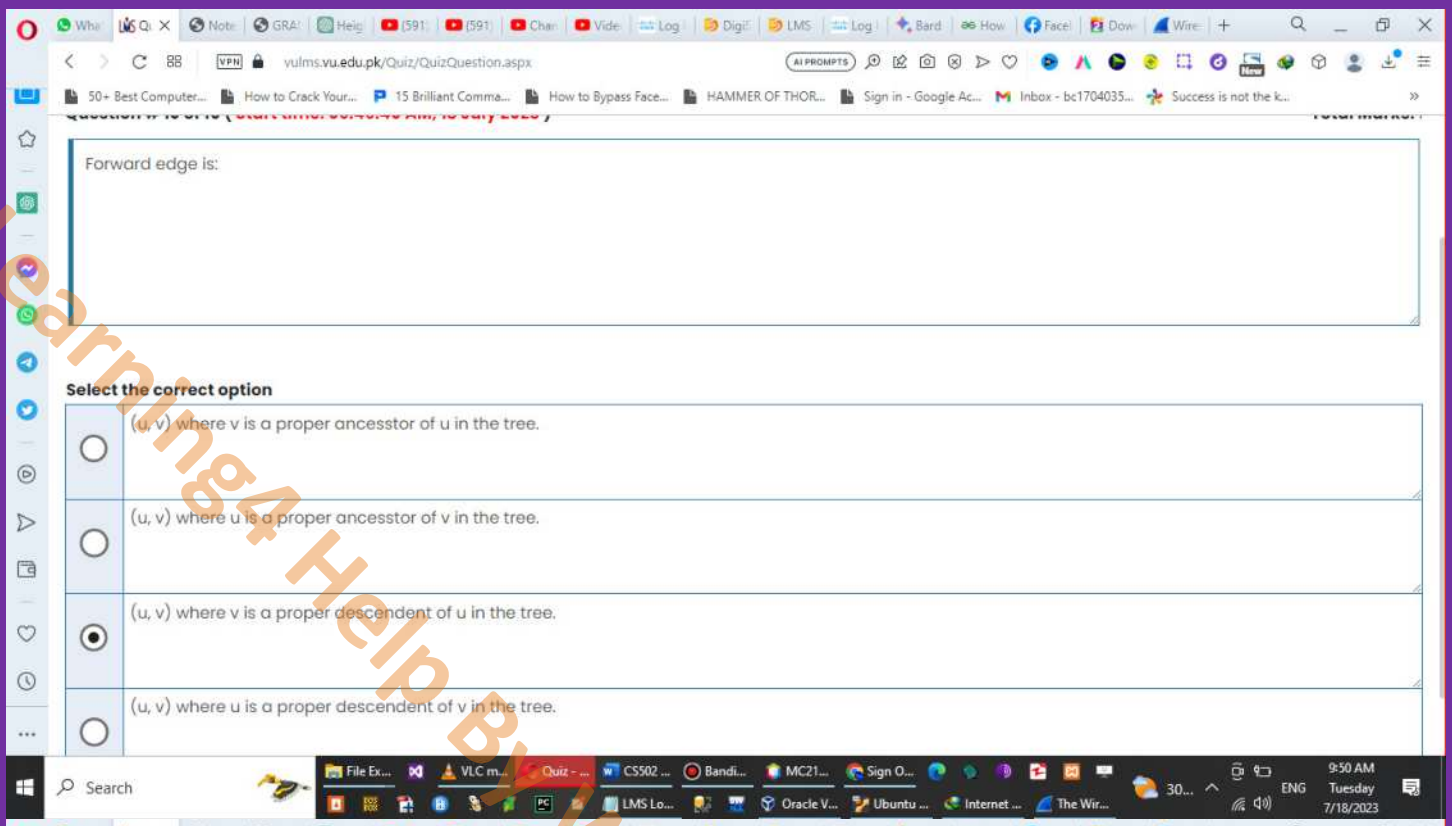


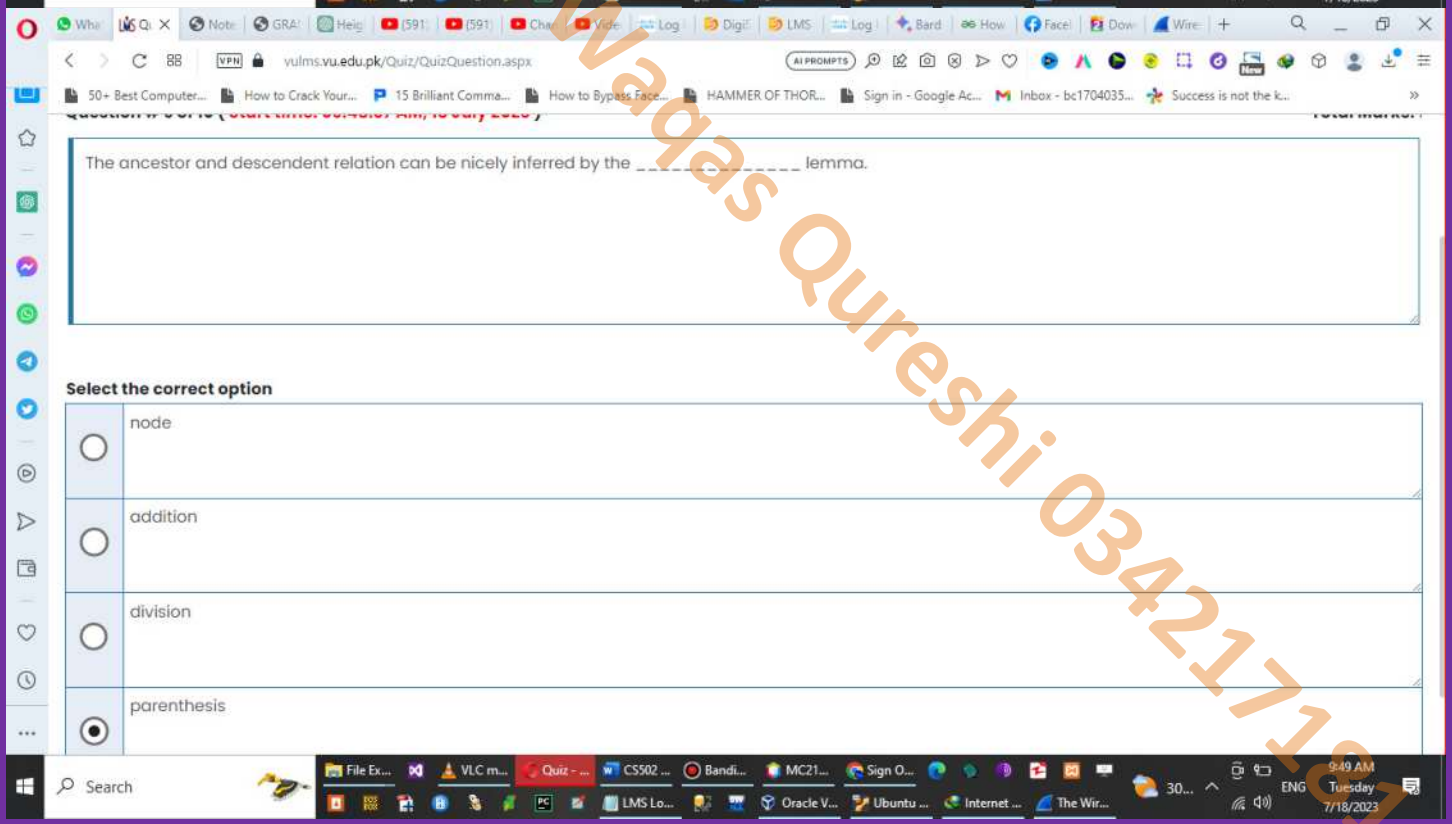
**Question # 2 of 10 ( Start time: 09:36:53 PM, 19 July 2023 )** **Total Marks:** 1

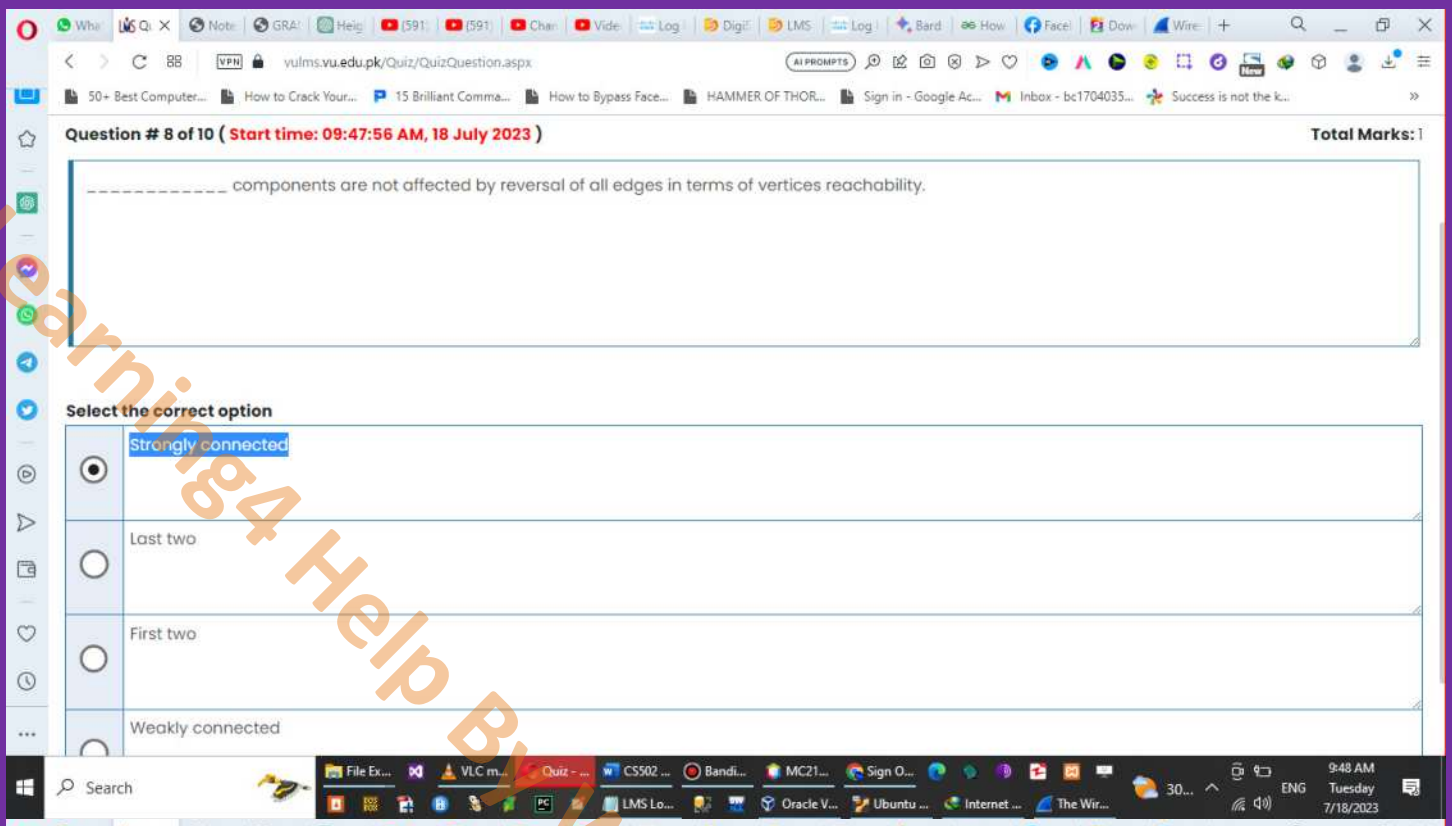
We say that two vertices u and v are mutually _____ if u can reach v and vice versa.

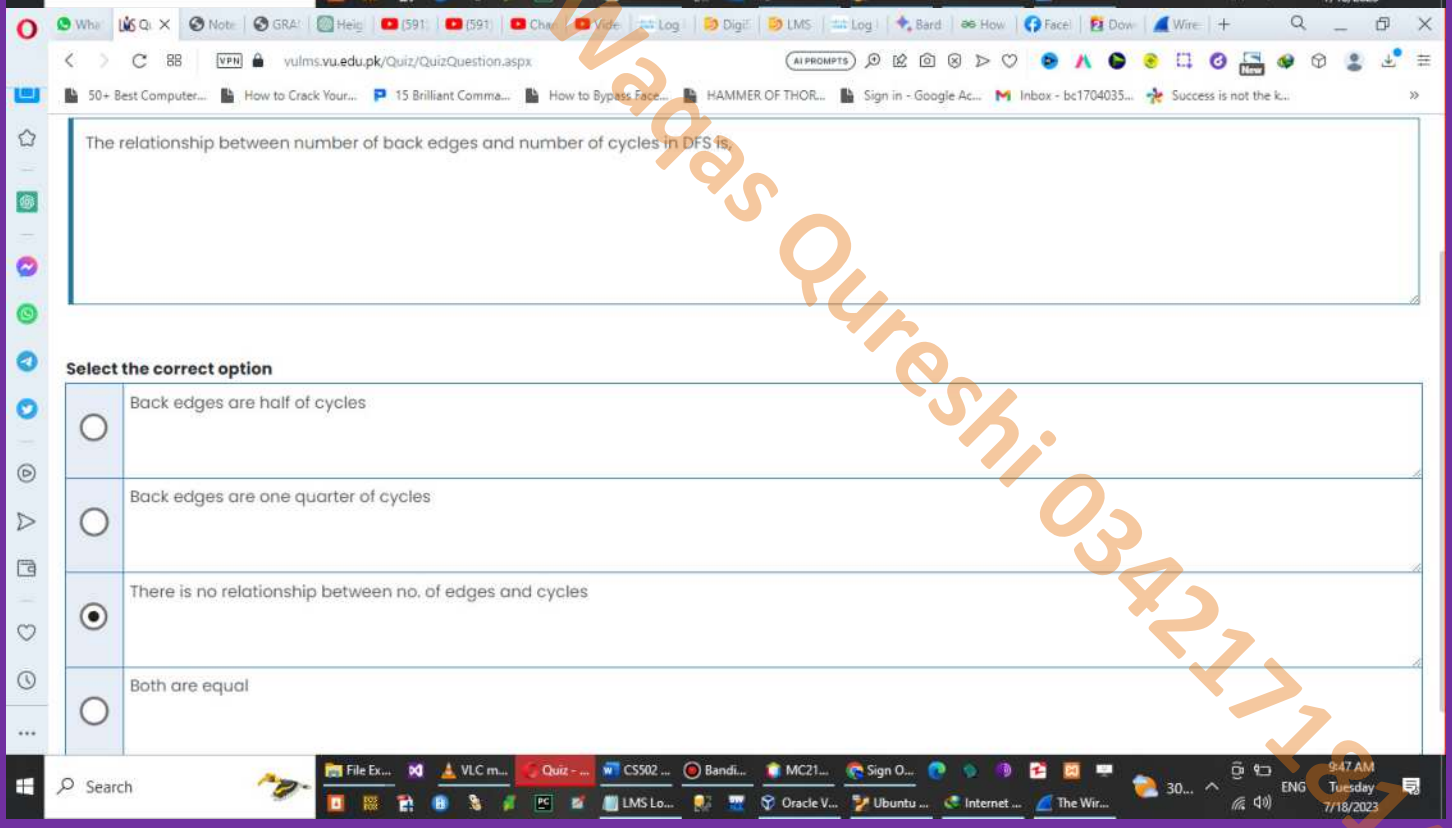
**Select the correct option**

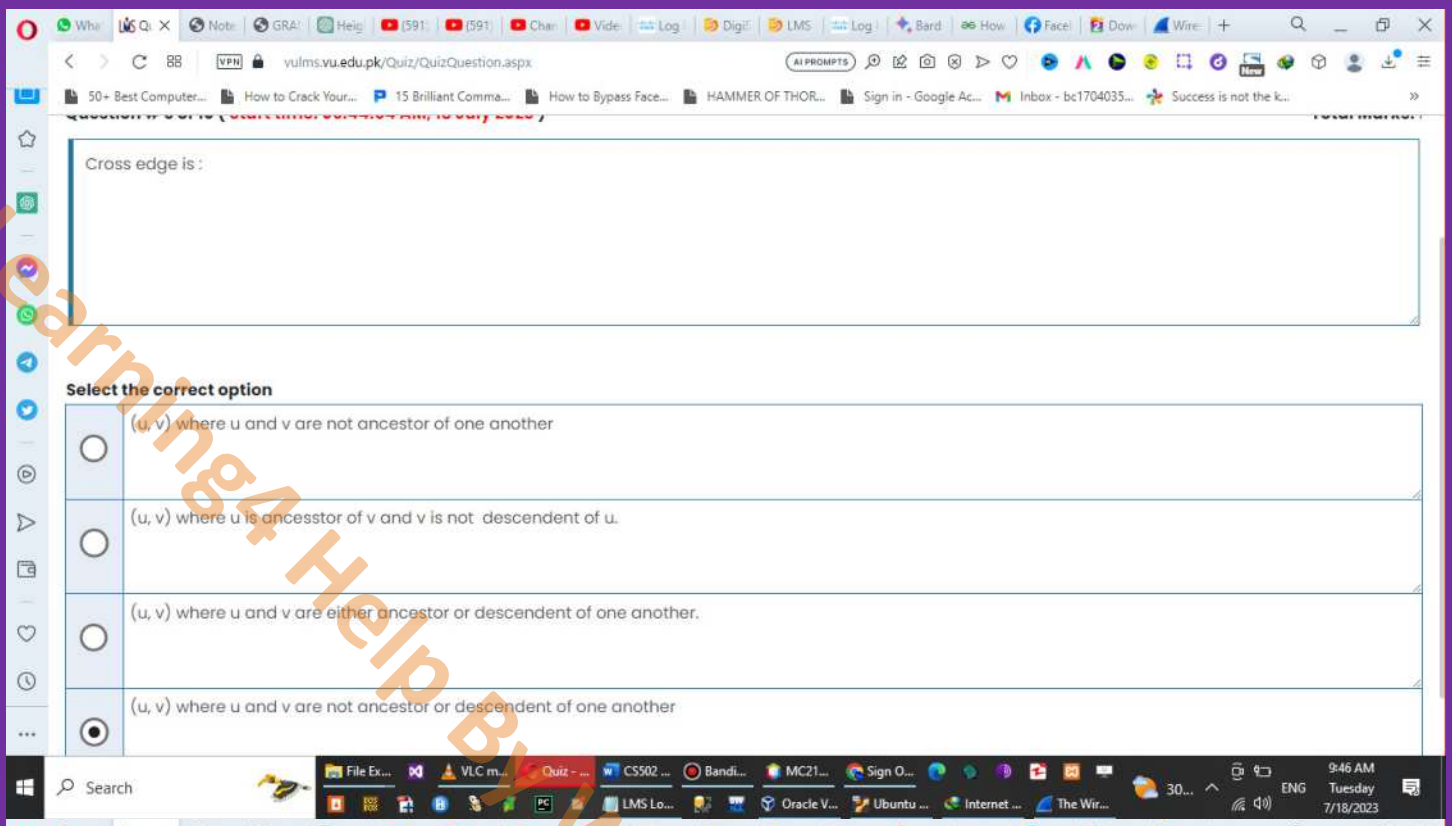
- ○ Crossed
- ○ Forward
- ◉ Reachable
- ○ Not Reachable

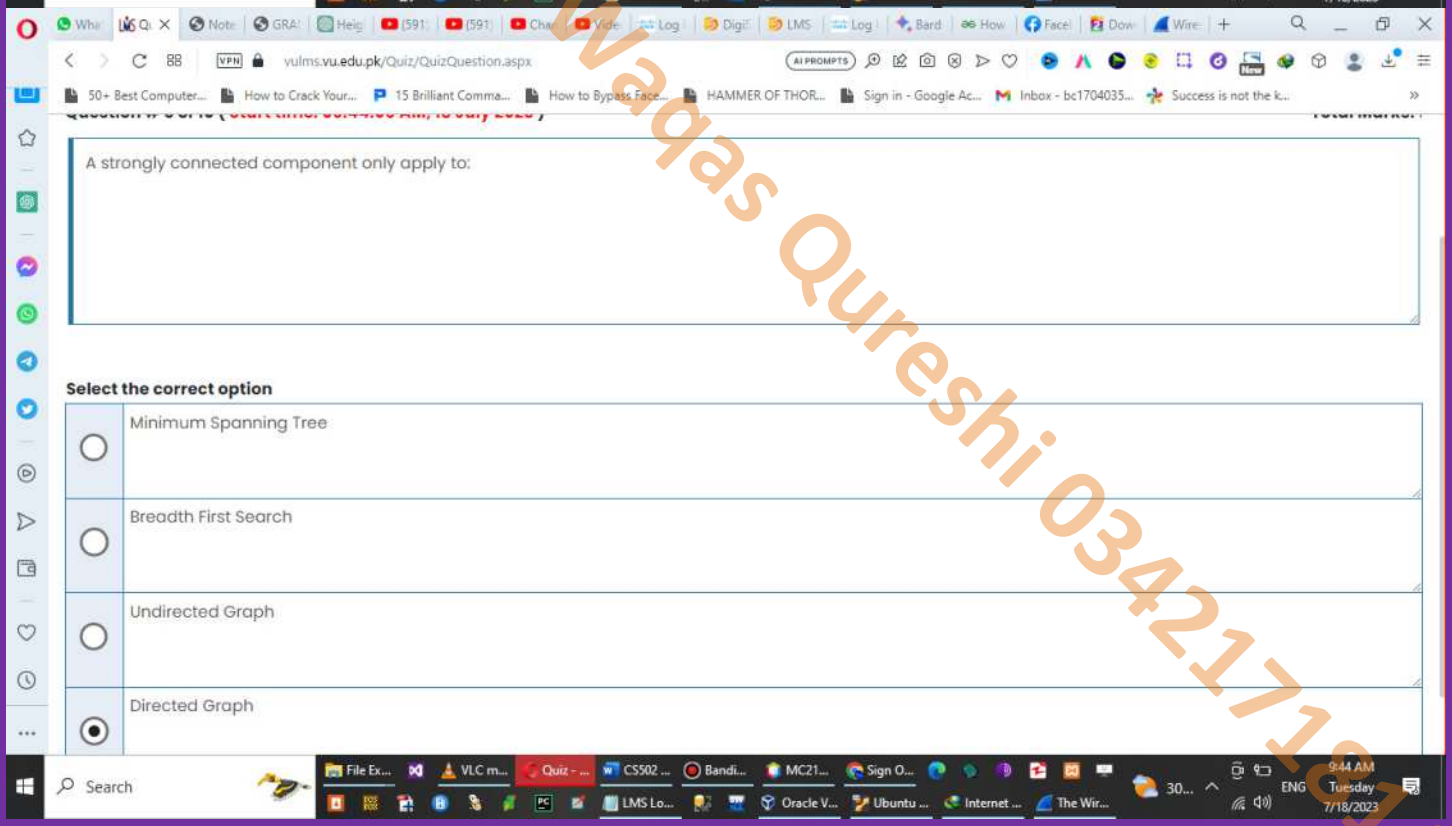


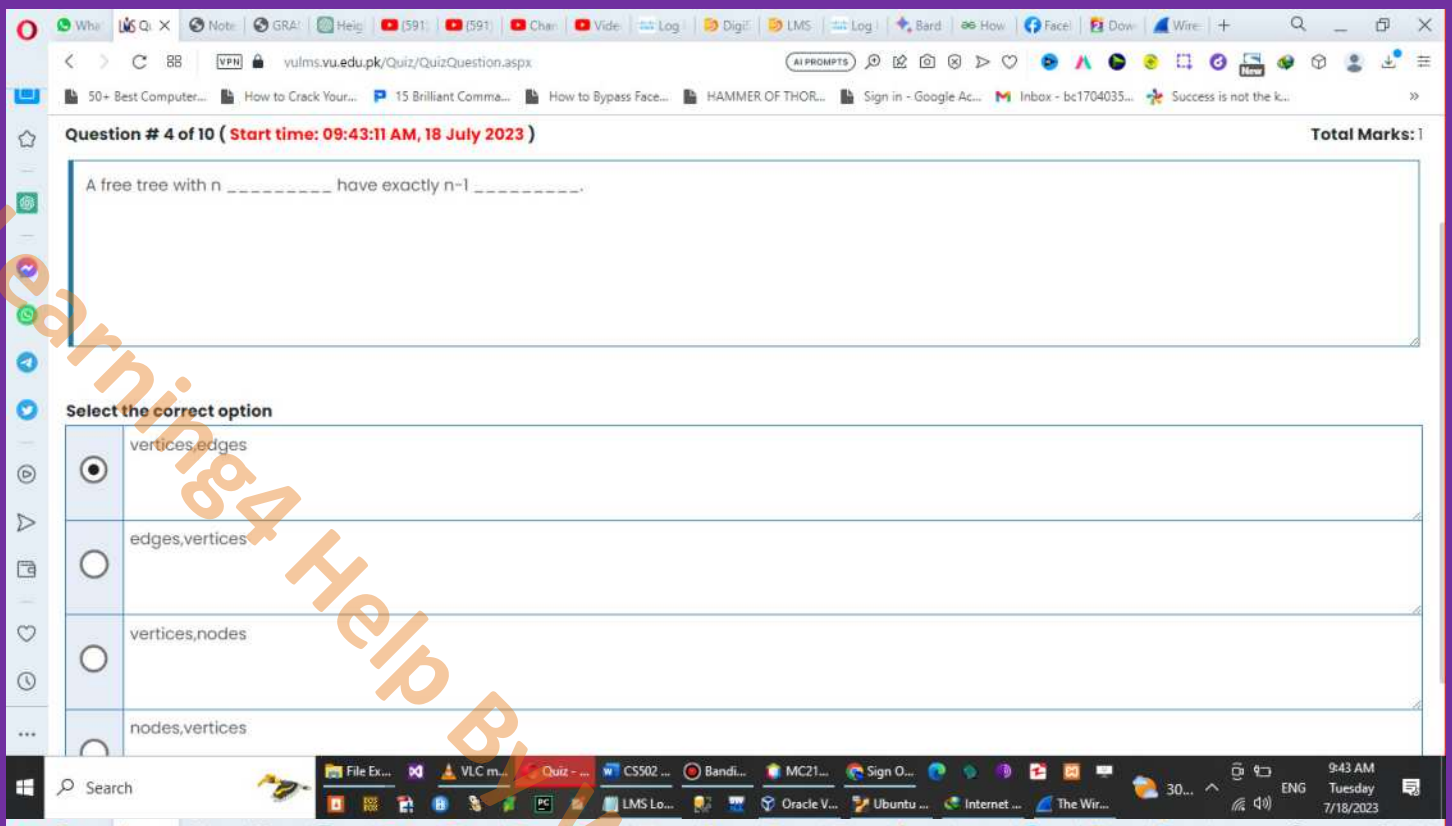



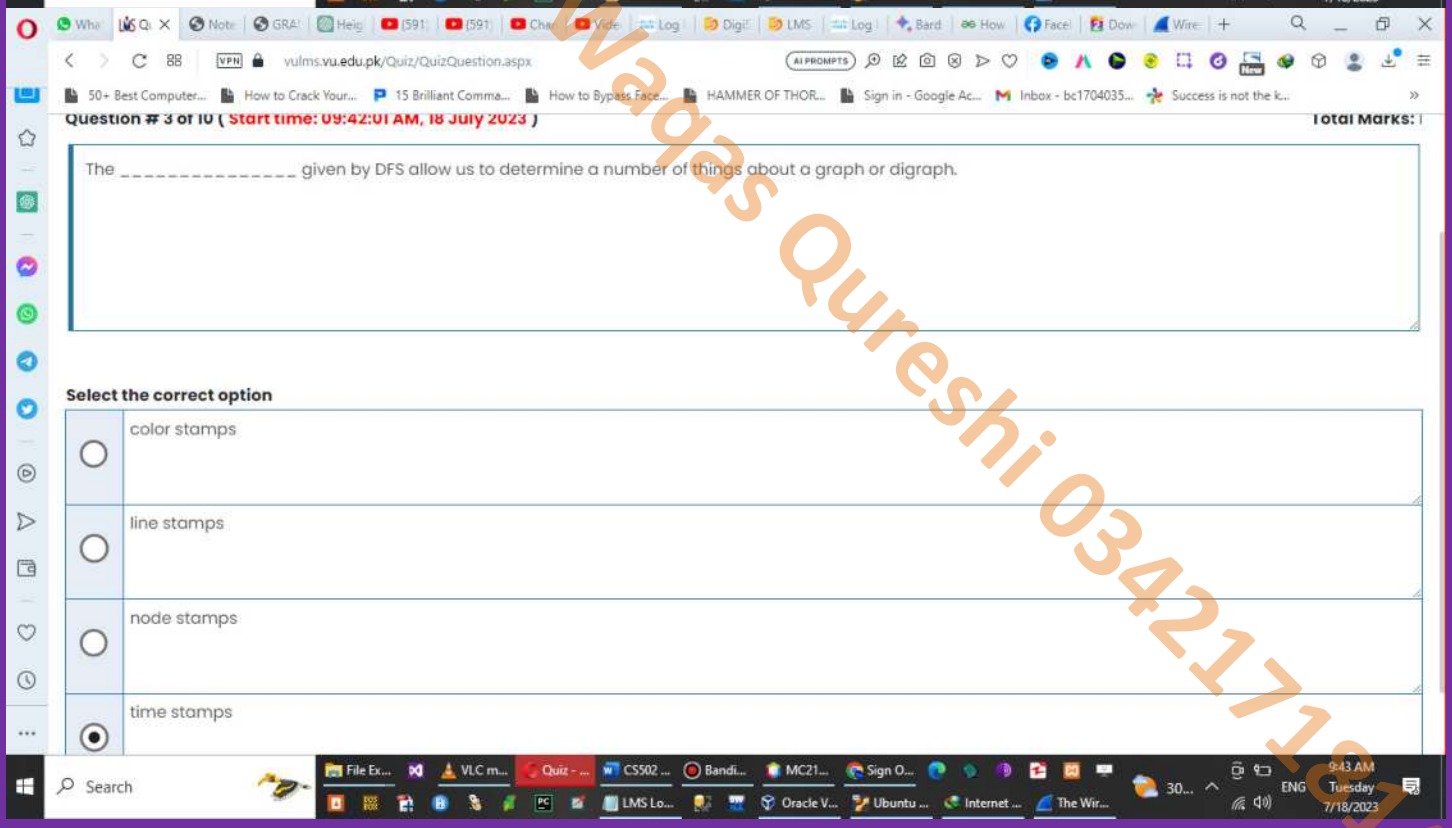


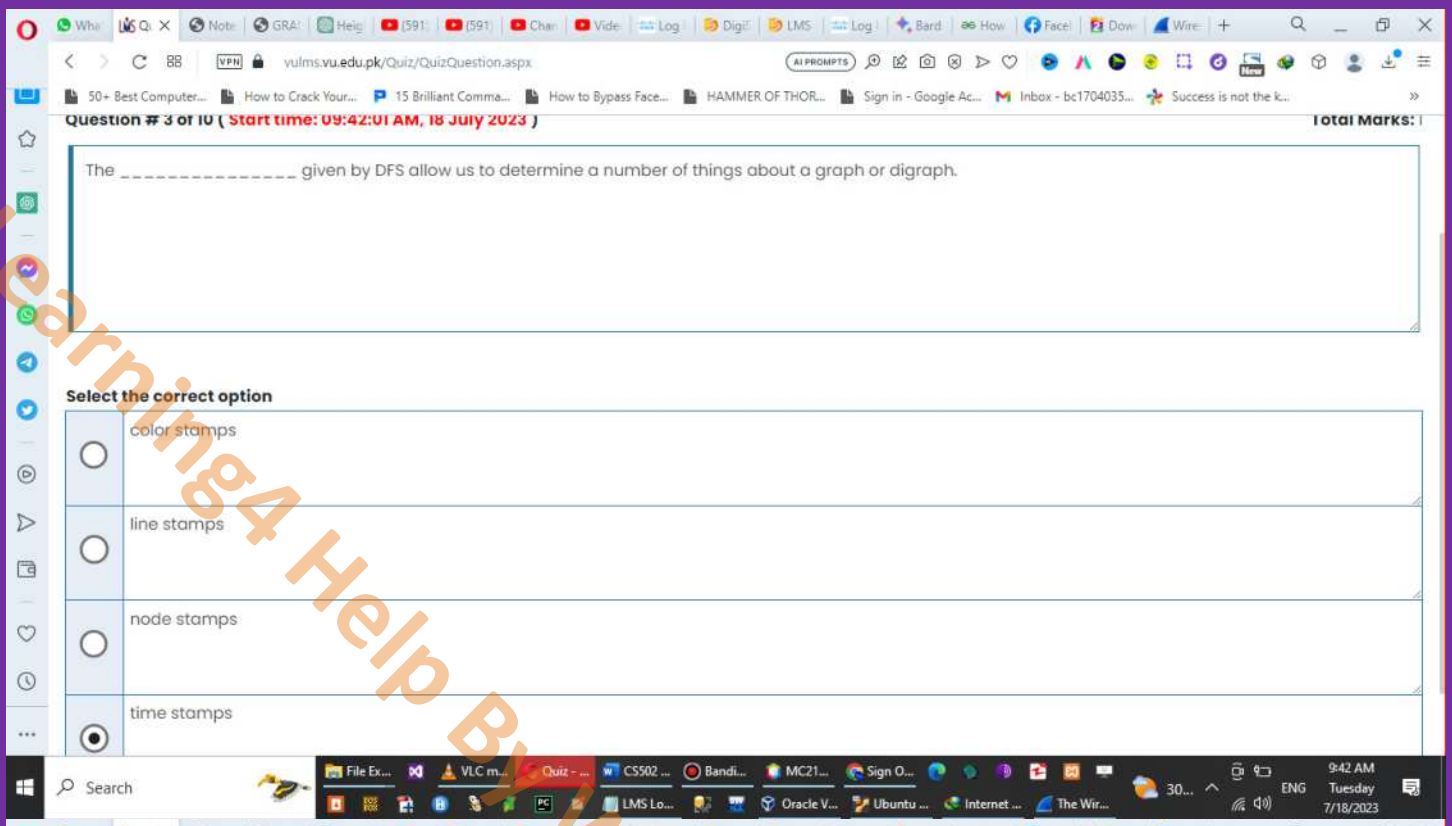



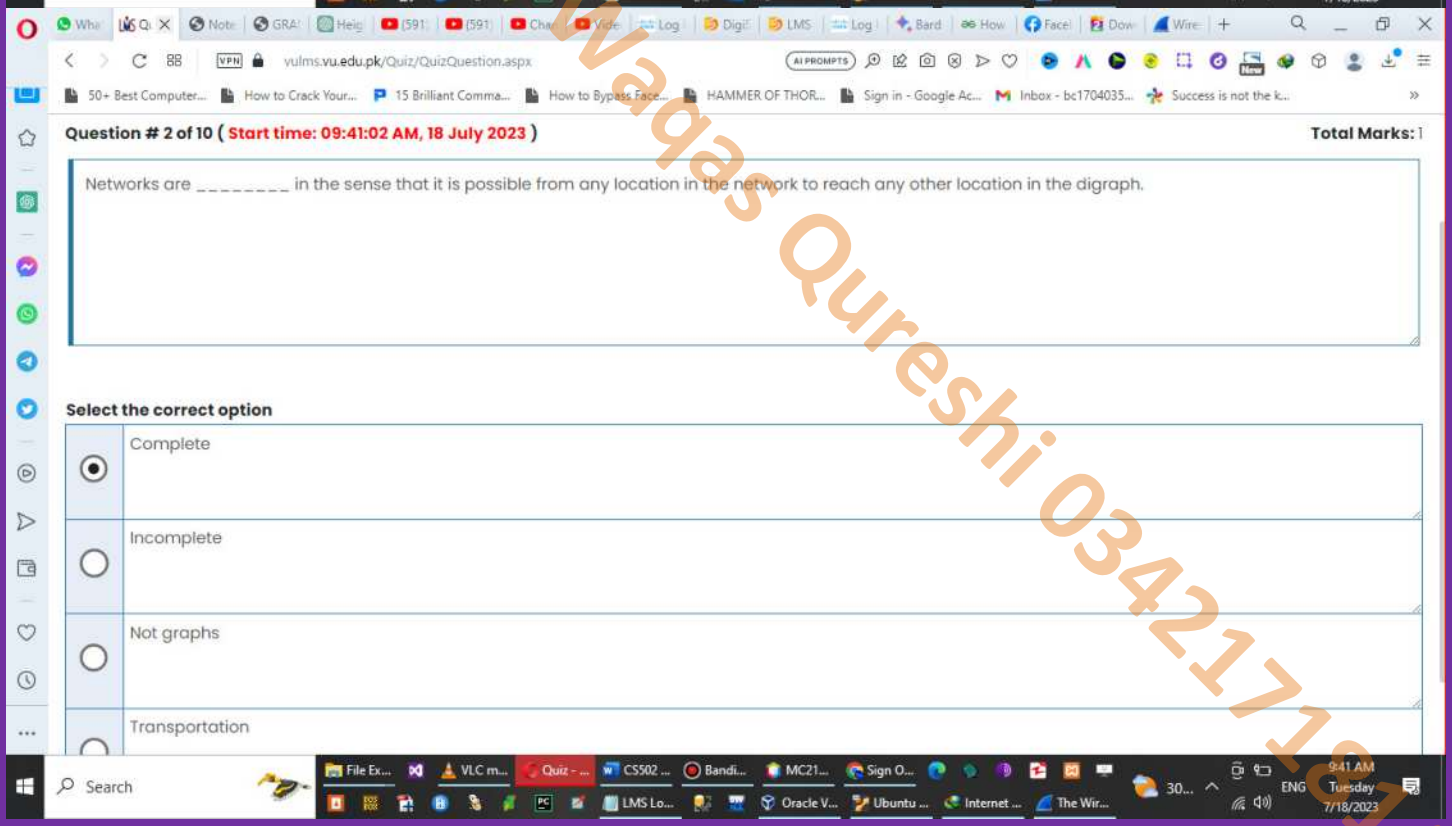


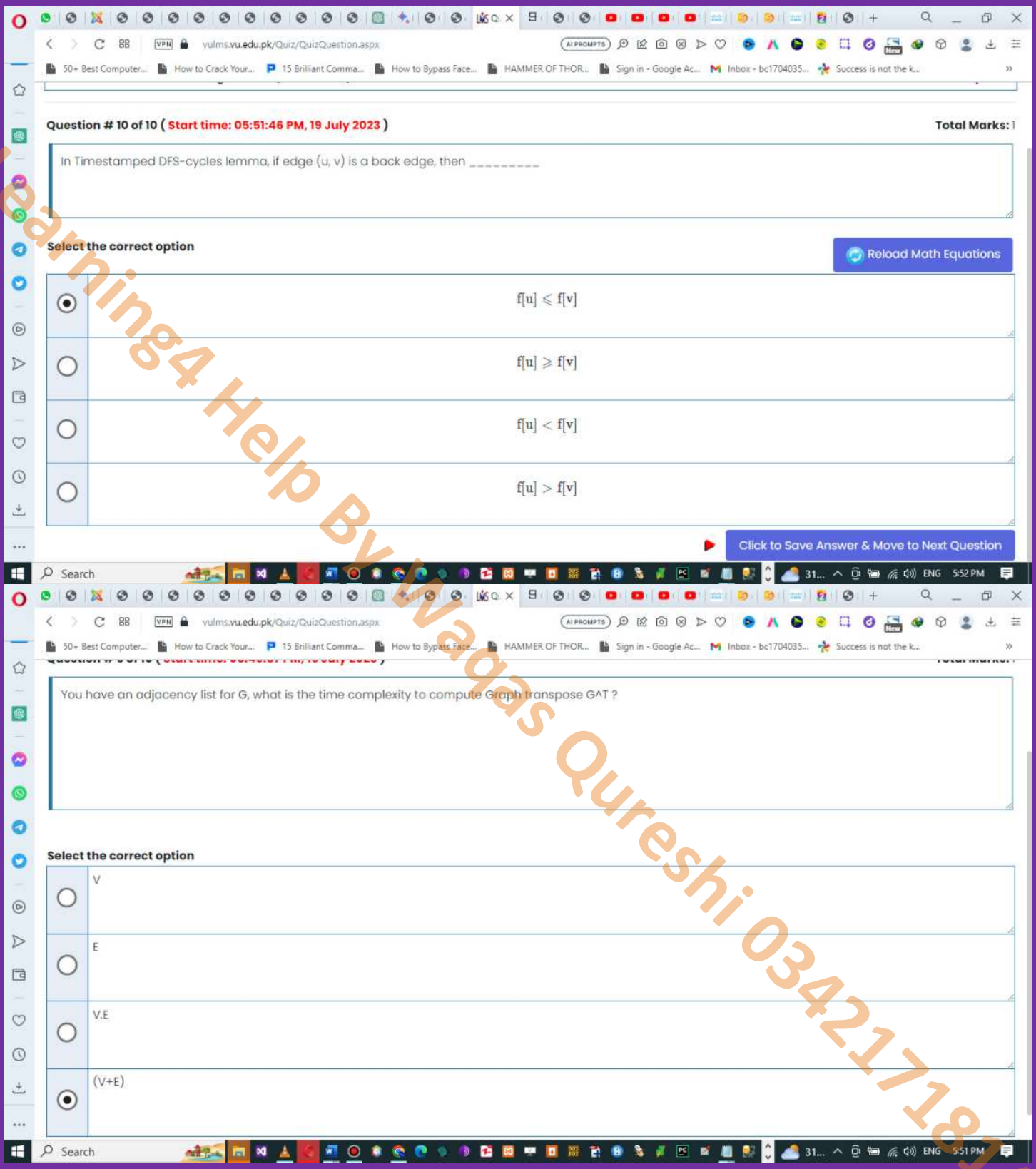









**Question # 10 of 10 ( Start time: 05:51:46 PM, 19 July 2023 )** **Total Marks:** 1

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

**Select the correct option**

Reload Math Equations

- $f[u] \leqslant f[v]$
- $f[u] \geqslant f[v]$
- $f[u] < f[v]$
- $f[u] > f[v]$

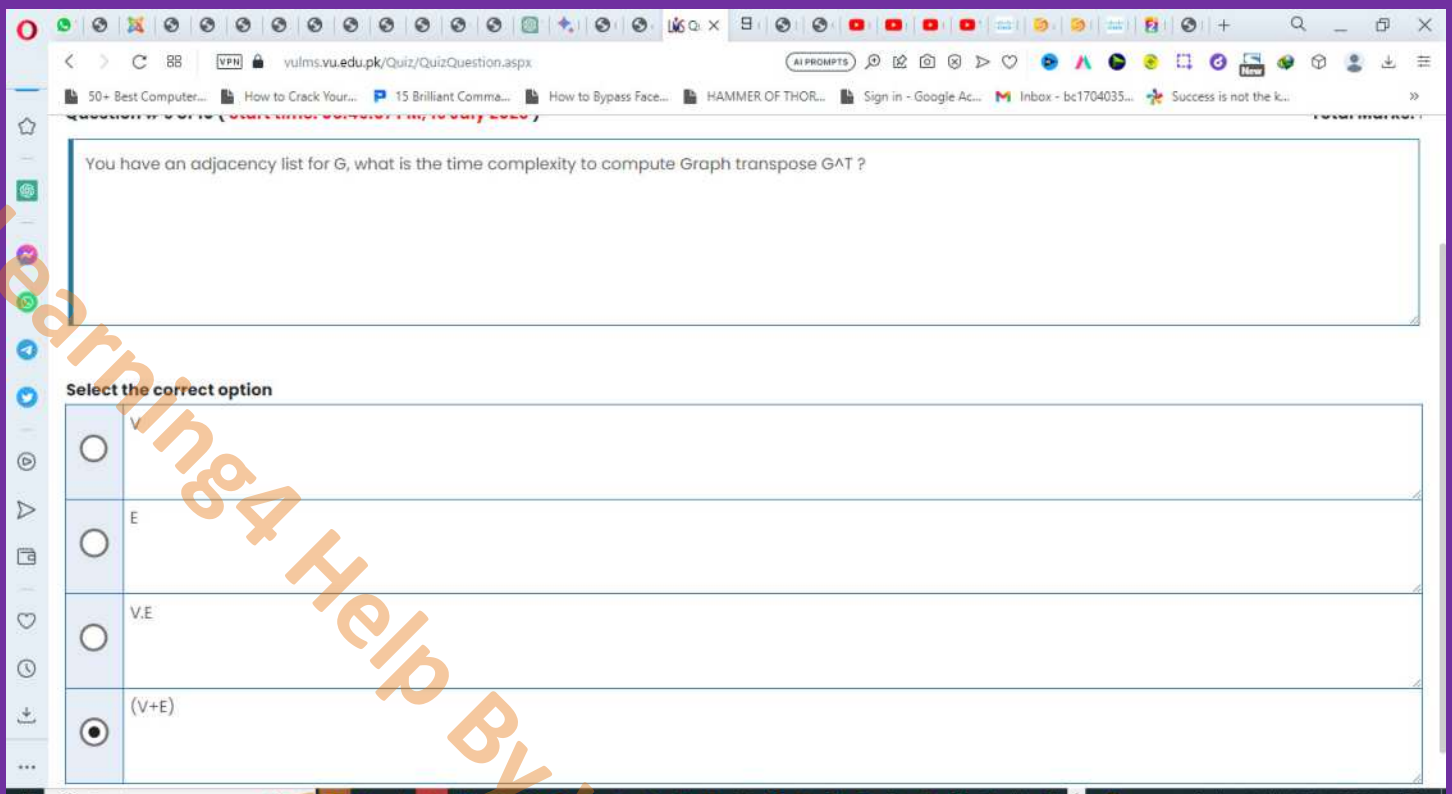
Click to Save Answer & Move to Next Question

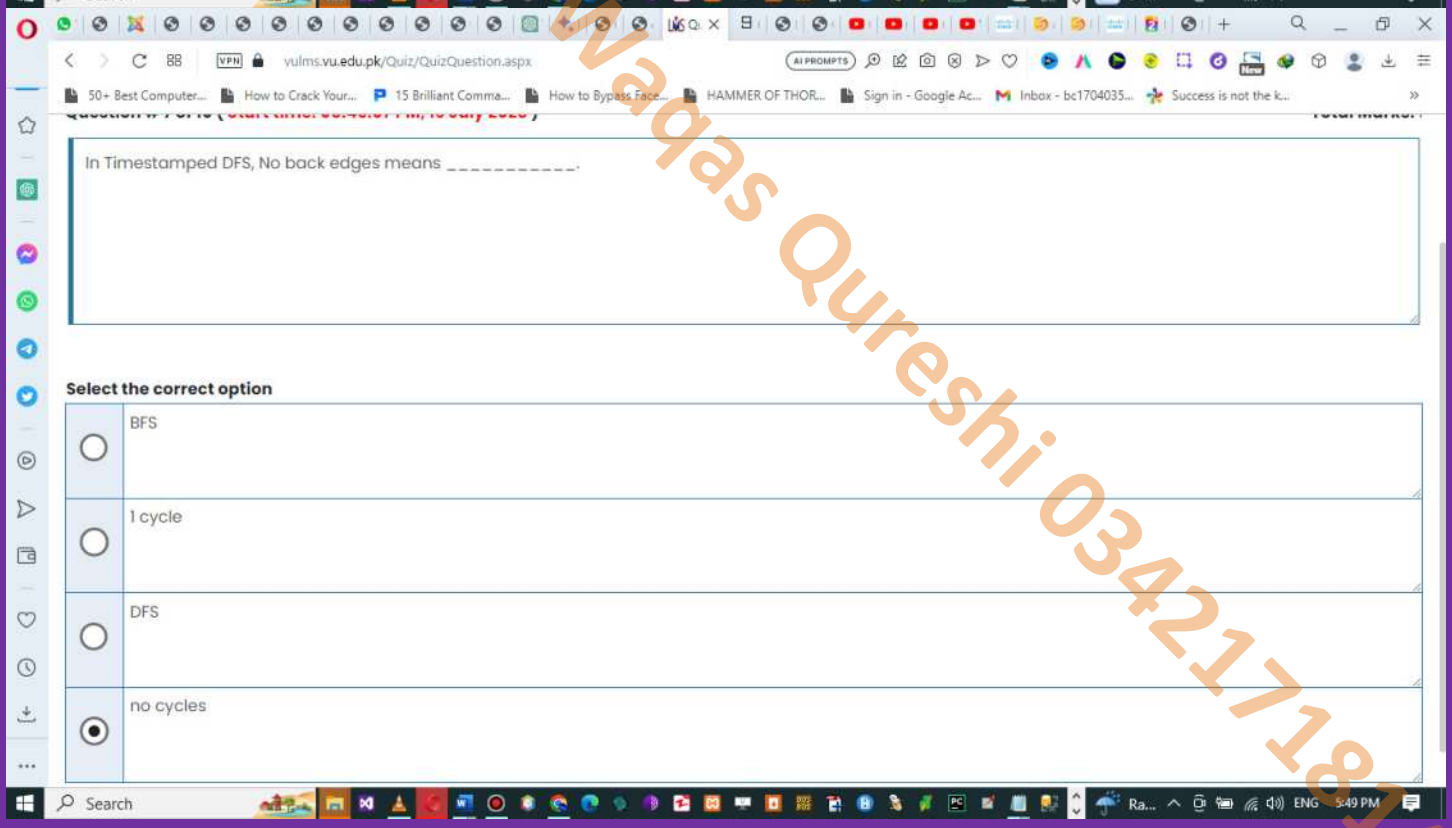


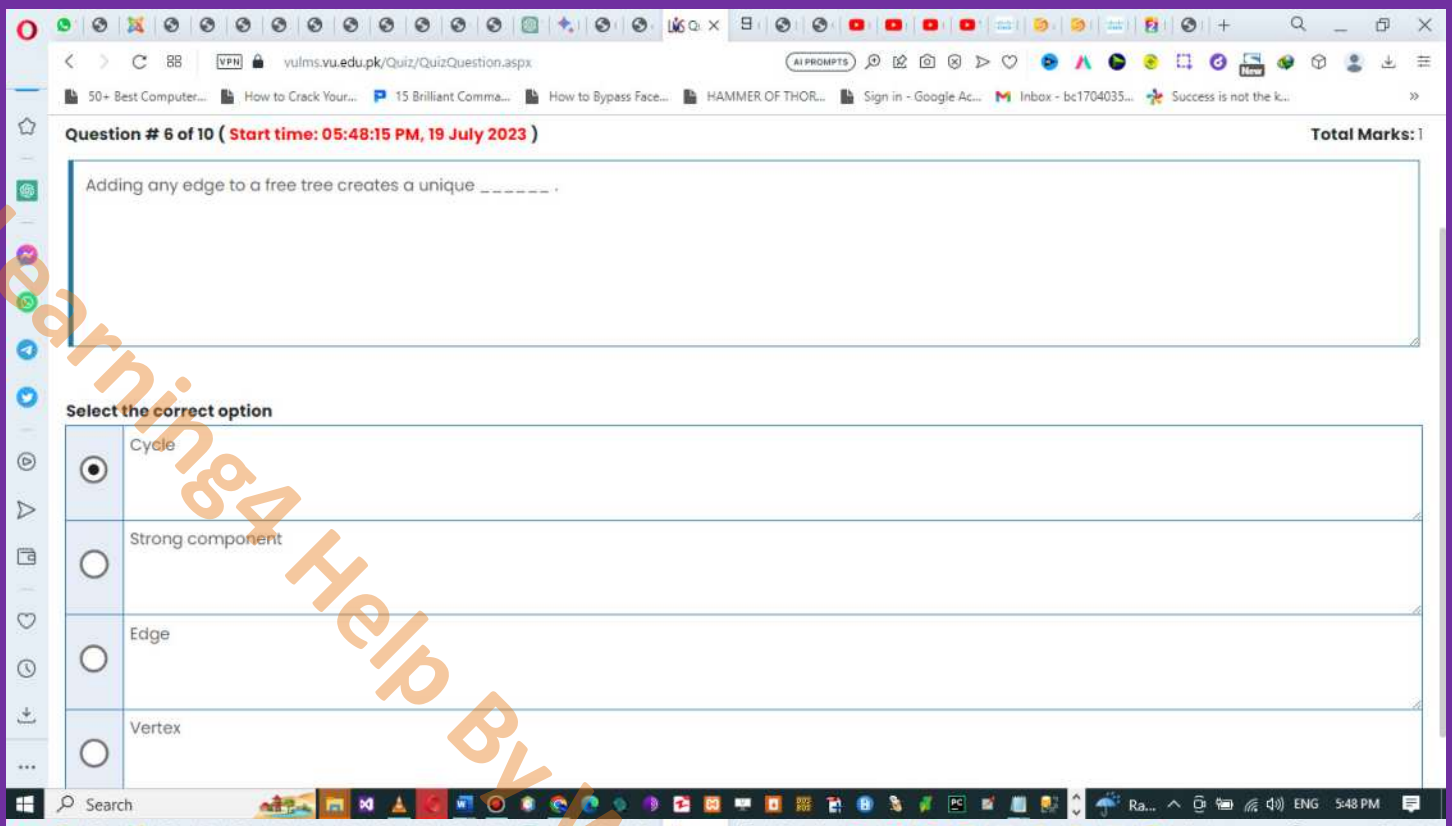
You have an adjacency list for G, what is the time complexity to compute Graph transpose G^T ?

**Select the correct option**

- V
- E
- V.E
- (V+E)



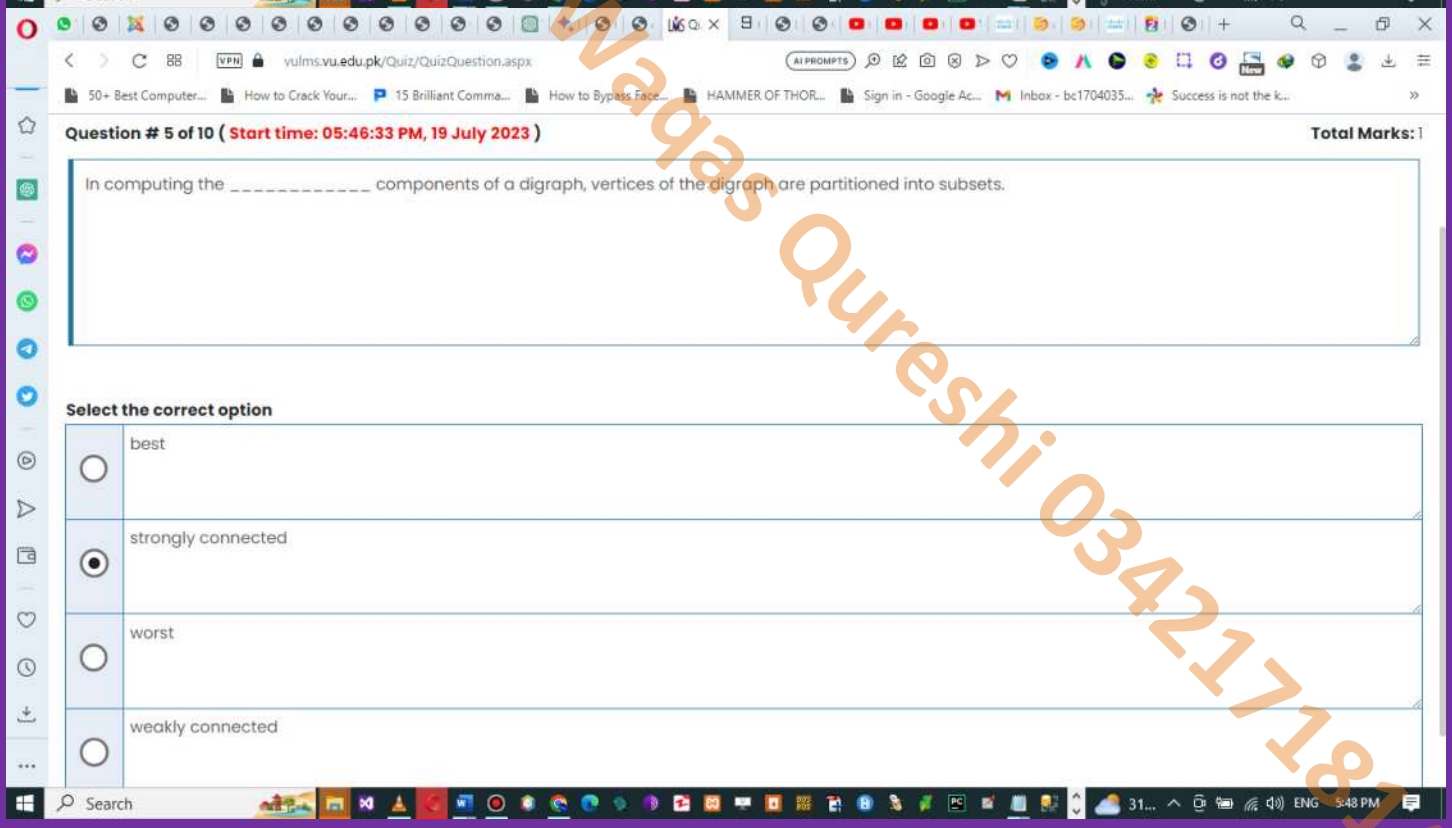


Question # 6 of 10 ( Start time: 05:48:15 PM, 19 July 2023 ) Total Marks: 1

Adding any edge to a free tree creates a unique _____ .

Select the correct option

- (•) Cycle
- ( ) Strong component
- ( ) Edge
- ( ) Vertex

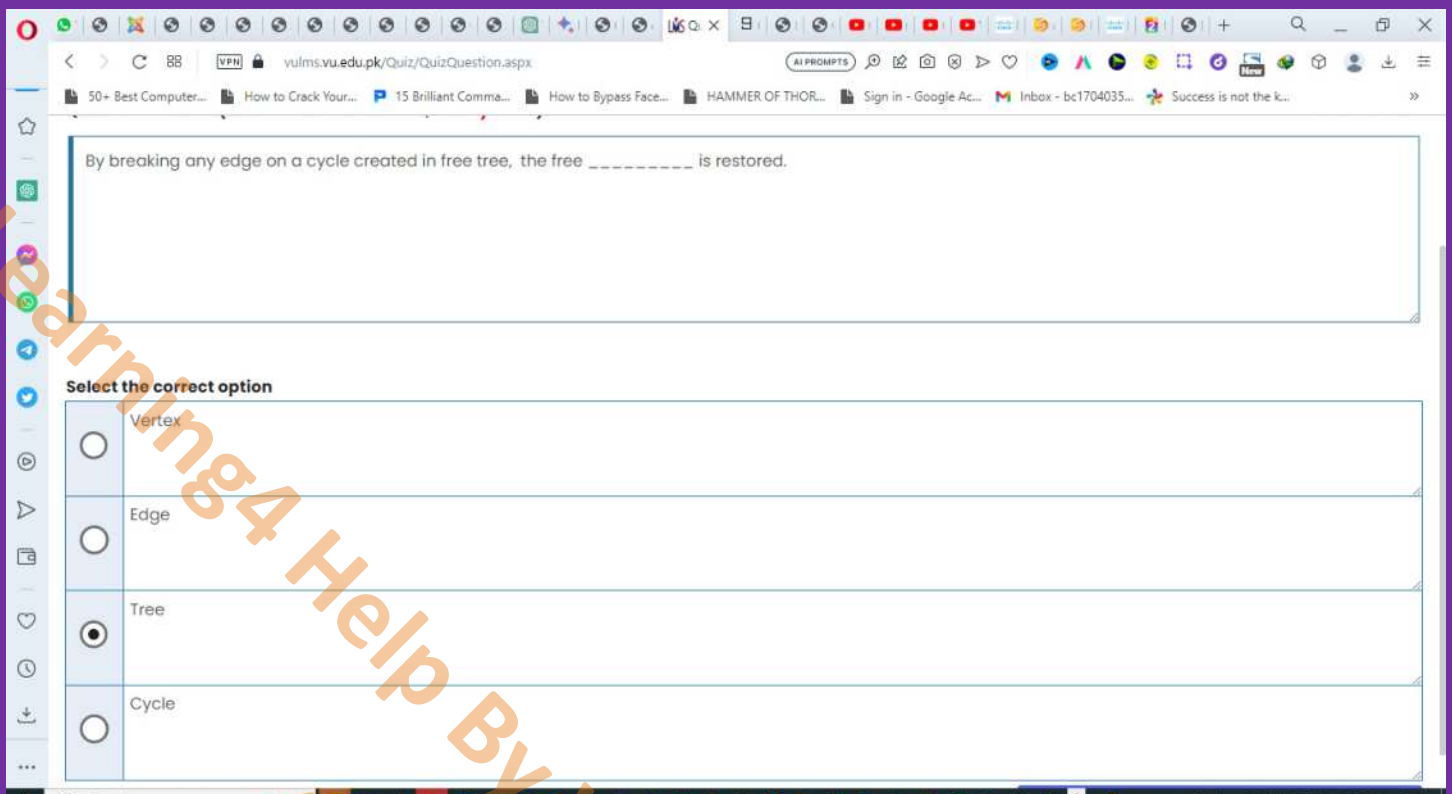


Question # 5 of 10 ( Start time: 05:46:33 PM, 19 July 2023 ) Total Marks: 1

In computing the _____ components of a digraph, vertices of the digraph are partitioned into subsets.

Select the correct option

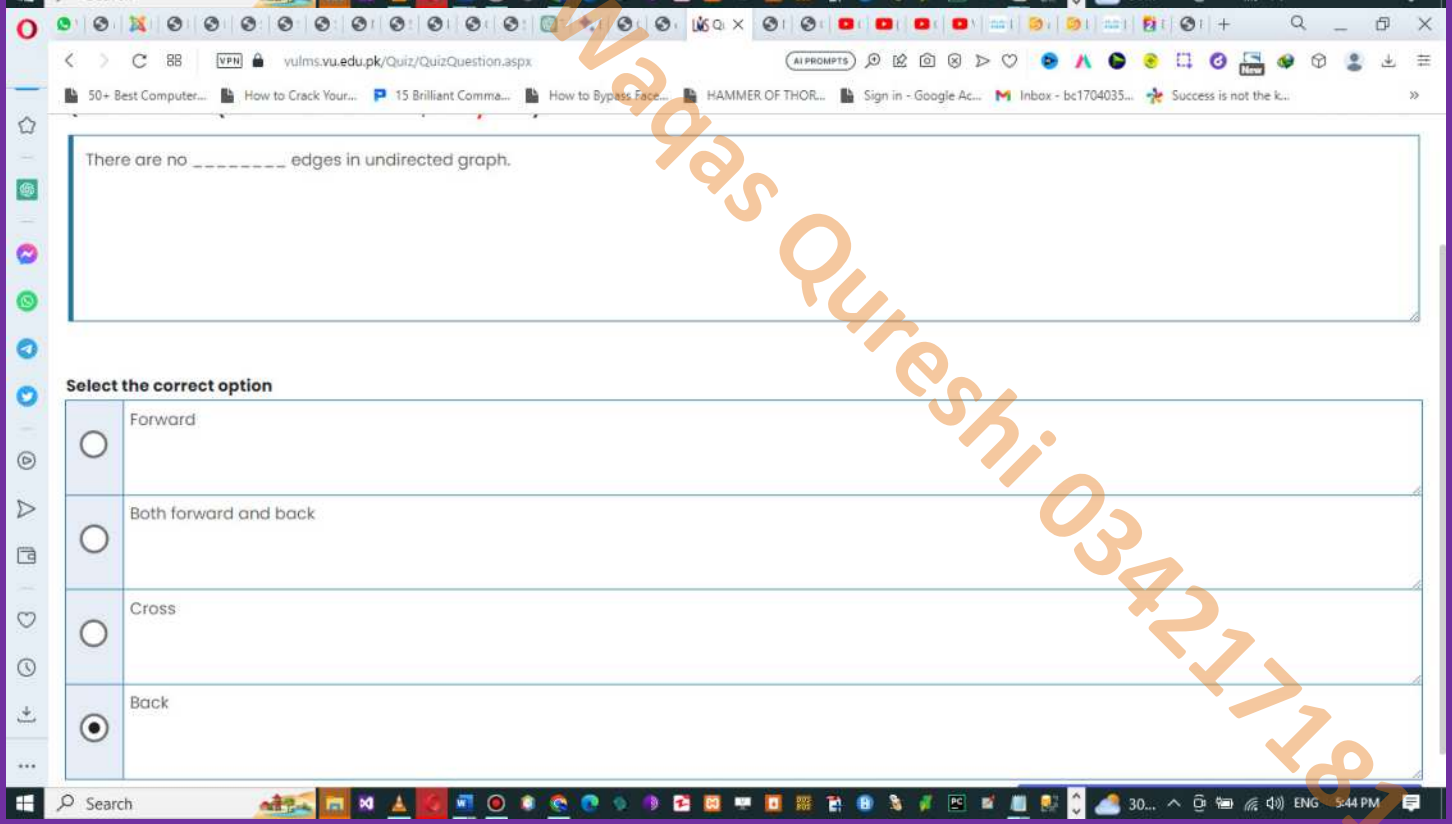
- ( ) best
- (•) strongly connected
- ( ) worst
- ( ) weakly connected



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

**Select the correct option**

- ○ Vertex
- ○ Edge
- ◉ Tree
- ○ Cycle



There are no _____ edges in undirected graph.

**Select the correct option**

- ○ Forward
- ○ Both forward and back
- ○ Cross
- ◉ Back