AQ11.1: Activity Questions 1 - Not Graded

**This assignment will not be graded and is only for practice.**

**Note : This activity is for your practice purpose only. Your score in this will not count towards the Final score.**

***1 point***

Which of the following statement(s) is/are correct about Depth First Search (DFS)? It is a Multiple Select Question (MSQ).

It is a recursive algorithm.

It uses the idea of backtracking.

It explores all possible searches at each node before backtracking.

None of the above

**State whether the following statements are true or false.**

***1 point***

A standard Depth First Search (DFS) implementation puts each vertex of the graph into one of the two categories: visited and not visited.

True

False

***1 point***

A Depth First Search (DFS) tree may contain cycles.

True

False

***1 point***

Some trains can be seen more than once in DFS tree of explored stations in the lecture.

True

False

***1 point***

In Depth First Search (DFS) technique if all searches exhaust at one of the node, it goes back to which of the following node?

Root of the DFS tree

Just previous node

First node of branching of DFS tree

None of the above

***1 point***

Which of the information not available in the DFS tree of explored stations in the lecture? It is a Multiple Select Question (MSQ).

Train number

Departure time

Arrival time

Distance travelled

Order of visited stations

***1 point***

Which of the following situations referring to terminate a branch of DFS tree of explored stations in the lecture? It is a Multiple Select Question (MSQ).

Visited stations

Exceeds the given time limit to explore stations

Availability of more than one train

Unavailability of trains at that station

None of the above

***1 point***

Consider the given tree.  
A diagram of a diagram

AI-generated content may be incorrect.  
Which is/are the longest possible path(s) of nodes in the given tree. (Note: Longest path is defined as the path with maximum number of vertices.)

A-B-C-E-F

A-B-C-G-F

A-B-C-G-H

A-B-C-E-H