AQ11.6: Activity Questions 6 - 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***

Choose the correct statement(s) about Depth First Search algorithm from given options. It is a Multiple Select Question (MSQ).

Start from node i, visit a neighbour node j

Explore all neighbours of node i before exploring neighbour j

Suspend the exploration of node i and explore node j instead

Keep track of visited vertices in a dictionary

Recursively update visited each time we explore an unvisited neighbour.

(Use the information for Question 2,3,4 and 5)  
  
Consider the following tree given in the figure.  
  
A diagram of a tree

AI-generated content may be incorrect.

***1 point***

Starting from the node A**A** , which algorithm will visit the least number of nodes before visiting node D**D**? Assume that if there is a choice of multiple nodes, algorithms will choose the node which comes alphabetically first.

Depth First Search (DFS) algorithm

Breath First Search (BFS) algorithm

Both DFS and BFS algorithms will visit same number of nodes

It can not be determined.

***1 point***

Starting from the node A**A**, which algorithm will visit the least number of nodes before visiting node E**E**? Assume that if there is a choice of multiple nodes, algorithms will choose the node which comes alphabetically first.

Depth First Search (DFS) algorithm

Breath First Search (BFS) algorithm

Both DFS and BFS algorithms will visit same number of nodes

None of the above

***1 point***

Starting from the node A**A**, in what order will the nodes be visited using a Depth First Search (DFS) algorithm to reach the node F**F**? Assume that if there is a choice of multiple nodes, algorithms will choose the node which comes alphabetically first.

AB**AB**

ABC**ABC**

ABEJKML**ABEJKML**

ABELJKM**ABELJKM**

***1 point***

Starting from the node A**A**, in what order will the nodes be visited using a Breath First Search (BFS) algorithm to reach the node F**F**? Assume that if there is a choice of multiple nodes, algorithms will choose the node which comes alphabetically first.

AB**AB**

ABC**ABC**

ABCDIME**ABCDIME**

ABCDE**ABCDE**