

## United International University Department of Computer Science and Engineering CSE 3811 Artificial Intelligence (Section A), Class Test 1, Spring 2023

Total Marks: 20, Time: 30 minutes

 Consider the state-space graph in the following figure. Considering S as the start node and G as the goal node, find out the solution paths and costs returned by the following tree-search algorithms. In case of ties, use alphabetical order to choose nodes. [2+2+2+4+6]

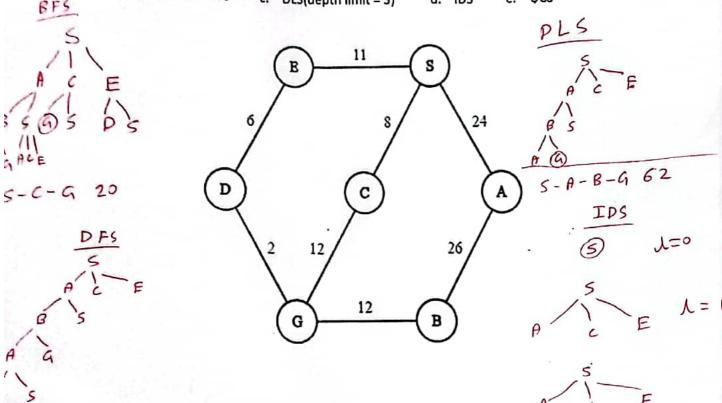
a. BFS

b. DFS

c. DLS(depth limit = 3)

d. IDS

e. UCS



. Is Depth First Search complete? Is it optimal? Explain your answer. [4]

16 17 522 40 p 4 27 23 19