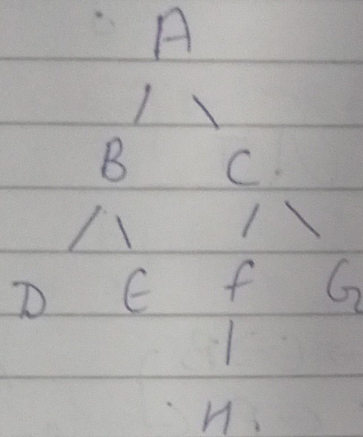


Dfs ÷

Q1.



Step	Node Expanded	Action / Result
1	A	Go to B (left)
2	B	Go to D (left)
3	D	Backtrack to B
4	B	Go to E (right)
5	E	Backtrack to B
6	B	Backtrack to A
7	A	Go to C (right)
8	C	Go to f (left)
9	f	Go to H
10	H	Goal found

path ÷

$A \rightarrow B \rightarrow D \rightarrow B \rightarrow E \rightarrow B \rightarrow A \rightarrow C \rightarrow f \rightarrow H$

Q2. DFS =

Start
/ \

A B

/ \ / \

C D E F

/ \ / \

H I G

/ \

A G

find a path from start (S) to f
(G) using DFS =

Step	node	Expansion / Action
1	S	Go to A (left)
2	A	Go to C (left)
3	C	Go to H (left)
4	H	Backtrack to C
5	C	Backtrack to A
6	A	Go to D (right)
7	D	Backtrack to A
8	A	Backtrack to S
9	S	Go to B (right)
10	B	Go to E (left)
11	E	Go to I (right)
12	I	Go to G (right)
13	G	Goal found

Path:

$S \rightarrow B \rightarrow E \rightarrow I \rightarrow G$