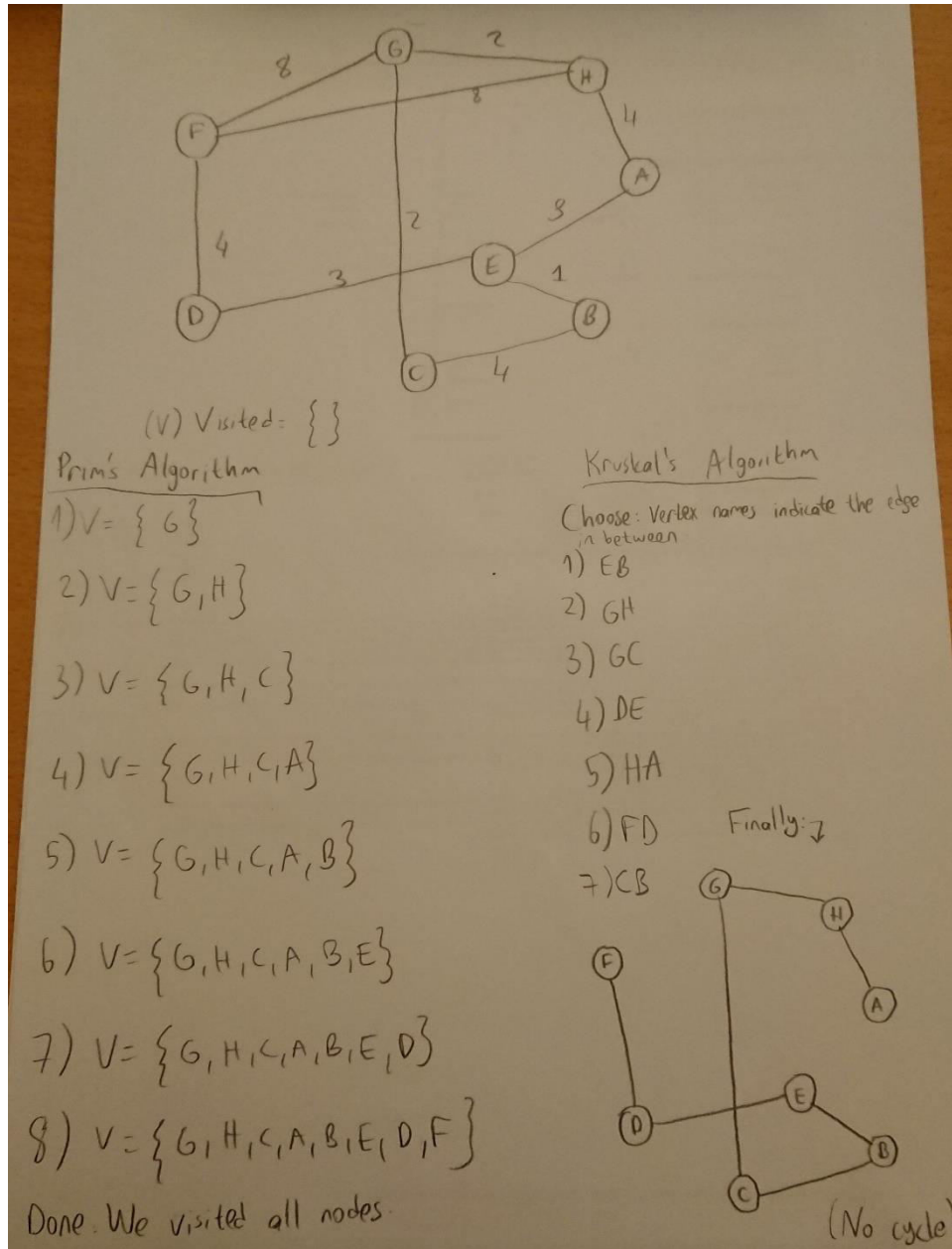


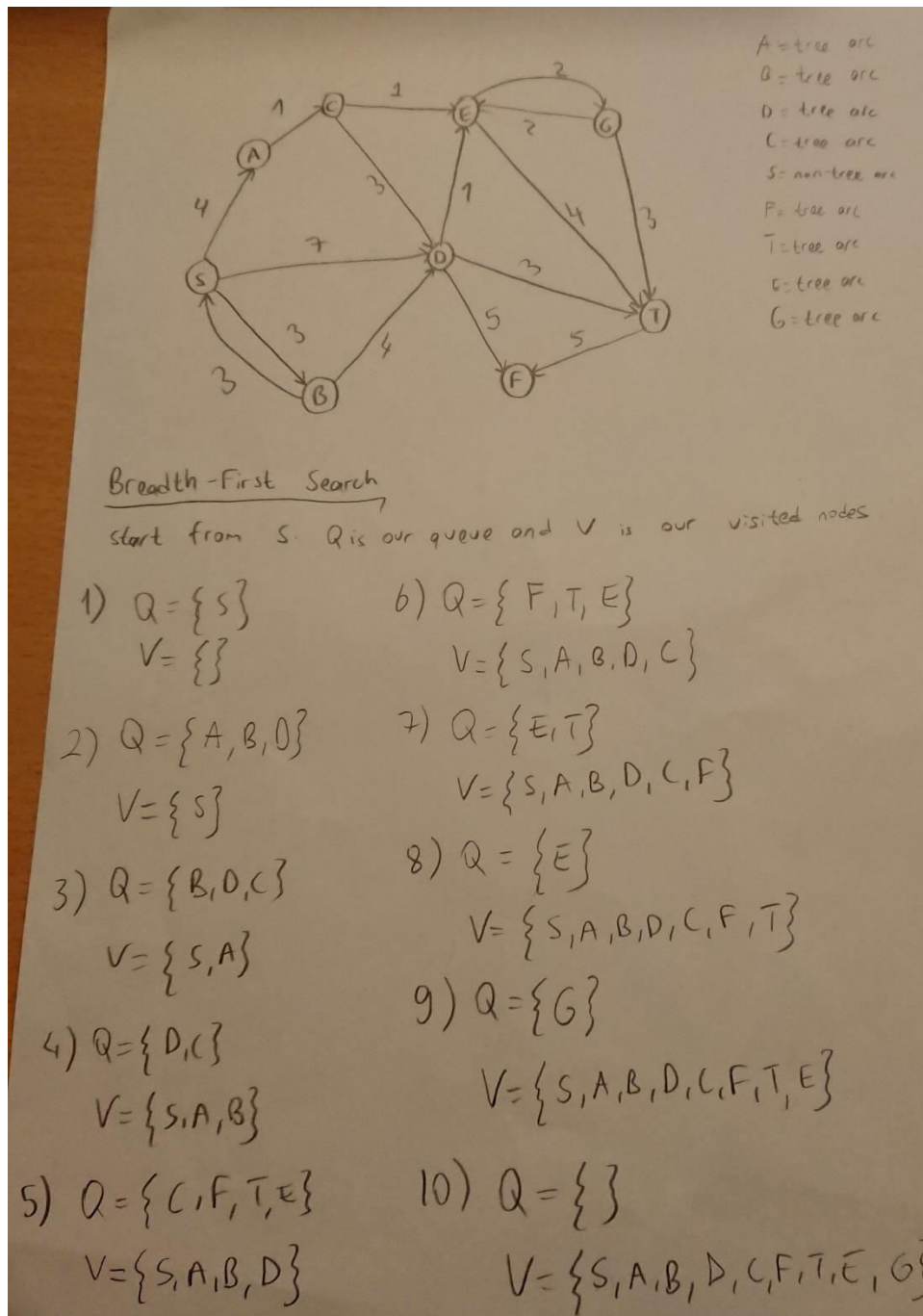
In this question, I showed where I am and how the values of the nodes are changing when the cost to that path is changing. If a path's cost is changed I crossed it out and showed properly.

## Question 2 and 3:



In this question, I show the Prim's and Kruskal's algorithms side by side. Prim's algorithm needs a Visited node track as shown. Kruskal's algorithm, however, do not use that kind of system but the lowest code choice of nodes. Explanation is already written but to make it even more clear, in my representation, EB denotes the edge between the vertices E and B.

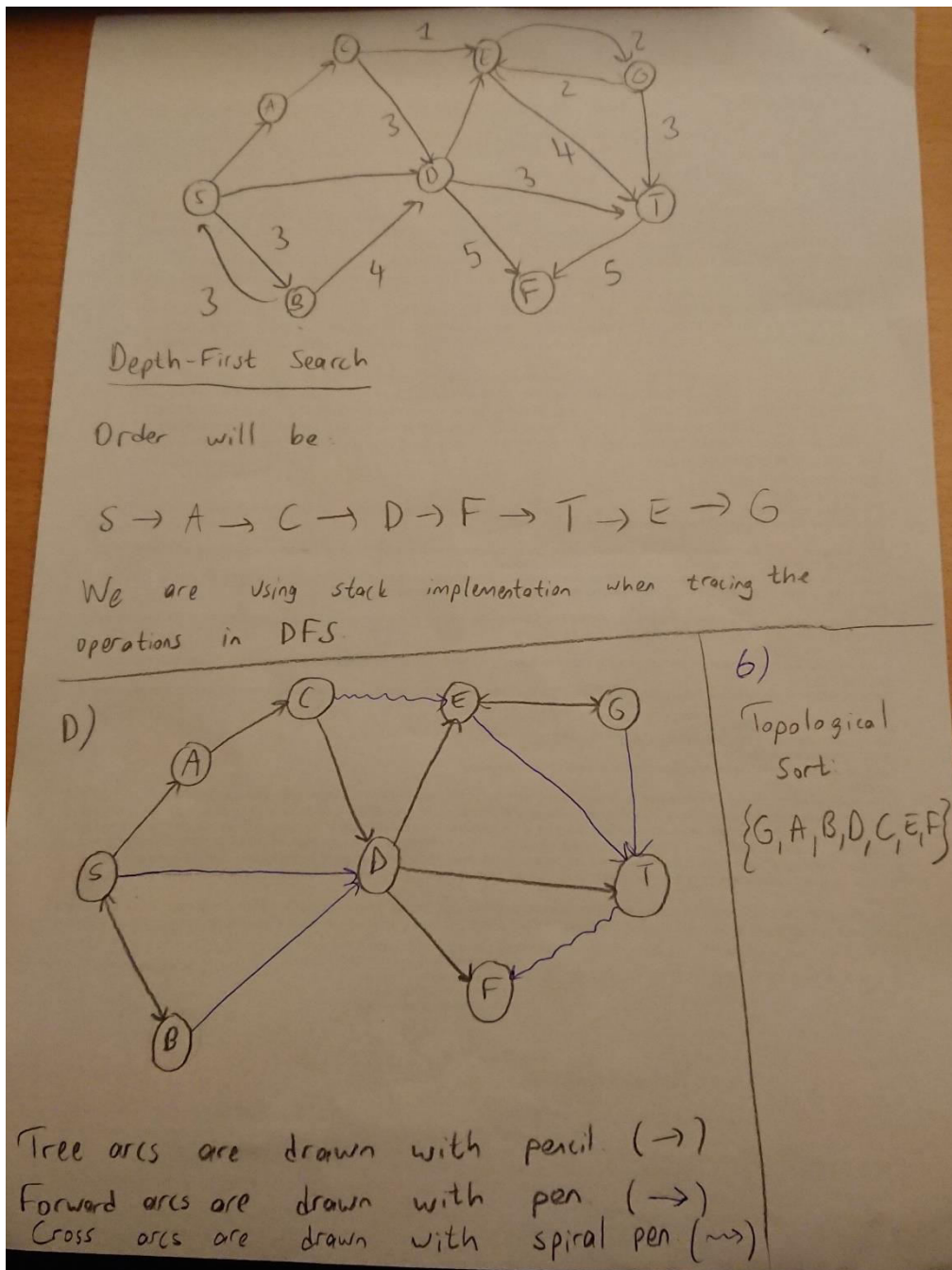
## Question 4:



In this question, I tried to show how breadth-first search proceeds. Q is the queue used in the algorithm and V is the visited array in the algorithm. (I hope I did not get confused and wrote wrong wrong order in V)

### Question 5:

**A, D:**



Order of DFS and arc types are pointed out as shown.

**B,S:**

	Pre	Post (Numbers)
A:	14	17
B:	2	3
C:	15	16
D:	4	13

E:    9       12  
F:    5       6  
G:    10      11  
T:    7       8  
S:    1       18

Pre and post numbers for each edge is shown.

### **Question 6:**

It is written in the snapshot of the paper in the Question 5. (right side). Again, here, it is:

{G, A, B, D, C, E, F}