Discrete Structures

Assignment 3

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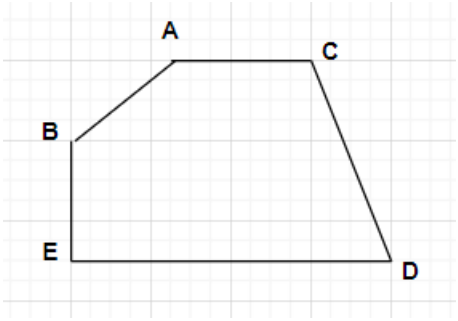
General Guidelines

1. Peer plagiarism will result in zero marks.
2. Late submissions are not allowed in any case.
3. Assignment must be submitted in hardcopy (either handwritten or printed form).
4. Follow the deadline mentioned on Google Classroom.
5. Total marks: 100

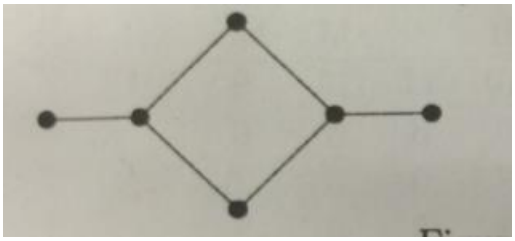
Question 1

Find the spanning tree for the following connected tree



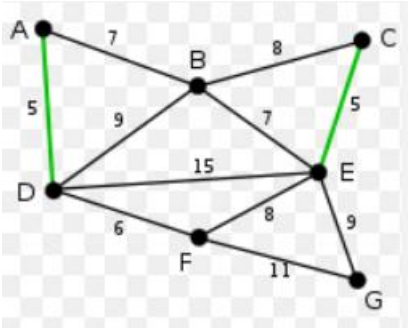
Question 2

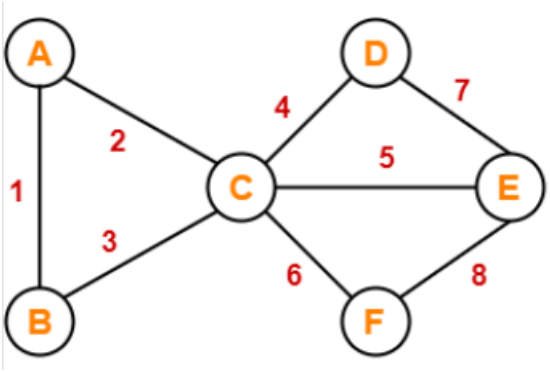
How many spanning trees does the following graph has? Draw all of them.

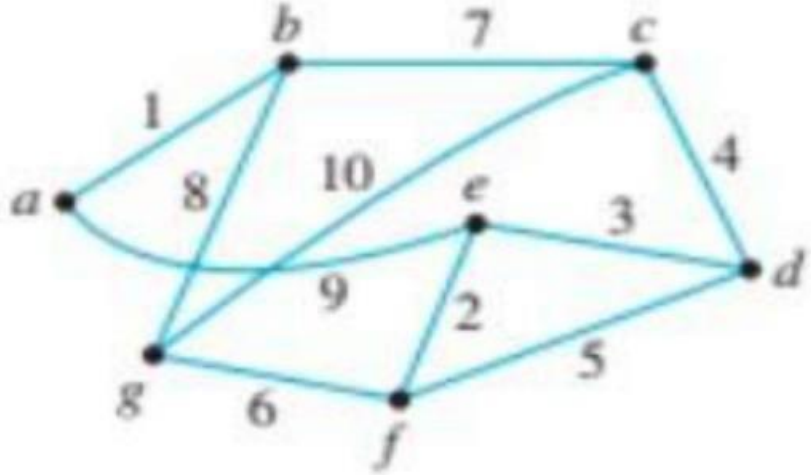


Question 3

Use Kruskal's algorithm to find a minimum spanning tree of the following:
(Clearly show each step.)

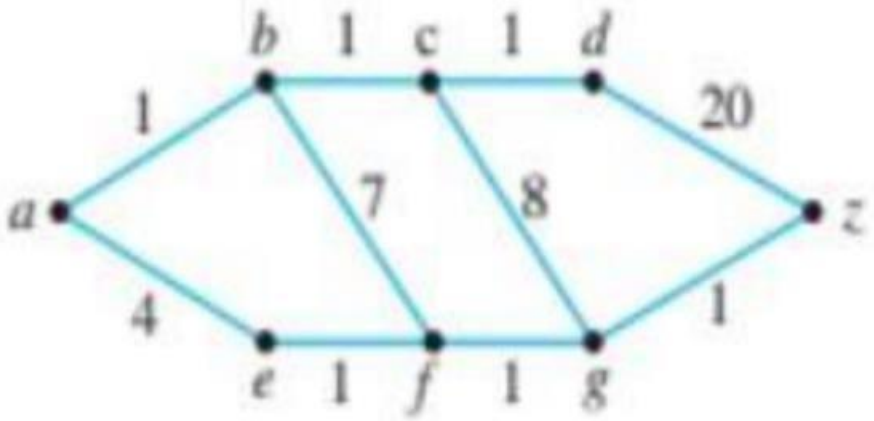


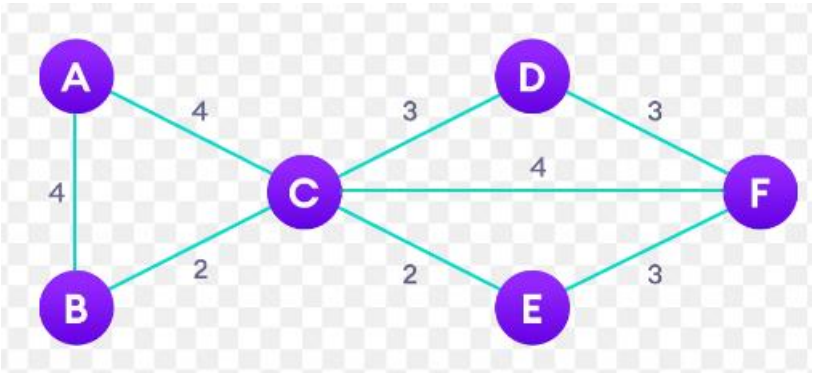


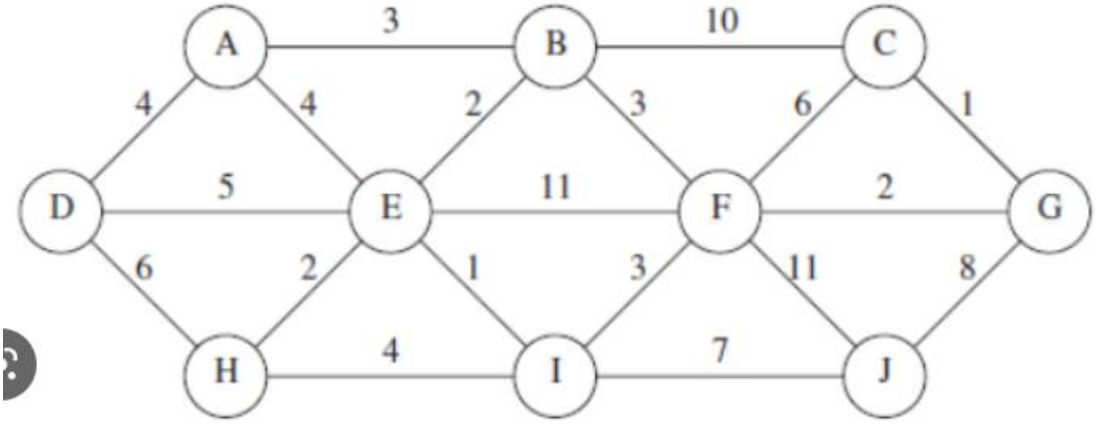


Question 4

Use Prim's algorithm on the following graphs:
(Clearly show each step.)


b
1
c
1
d
1
20
a
7
8
z
4
1
e
1
f
1
g


A
4
3
D
3
4
4
C
F
2
2
3
B
E


A
3
B
10
C
4
4
2
3
6
1
D
5
E
11
F
2
G
6
2
1
3
11
8
H
4
I
7
J