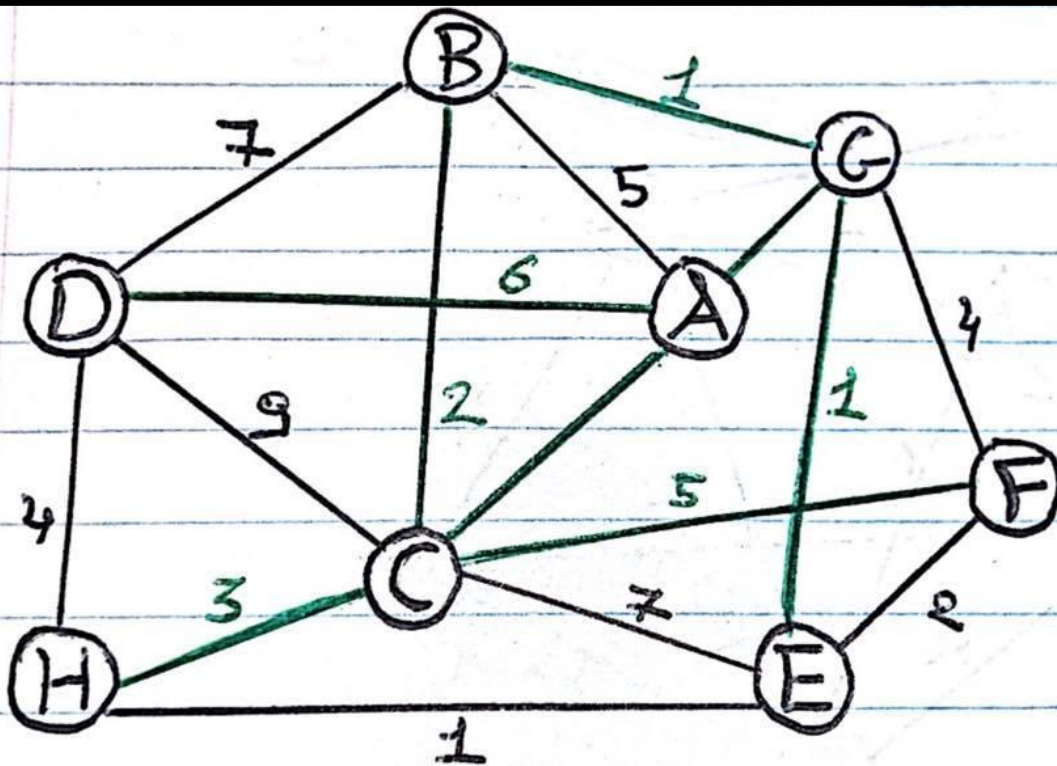


Question 1 :

a)



(Edges in green represent the shortest paths)

thick

CSI2110-D – Written Assignment #10

Alae Boufarrachene (300188539)

b)

Vertices (in order)
A
C
B
G
E
H
D
F

Edges (in order)
A-C
C-B
B-G
G-E
E-H
H-D
D-F

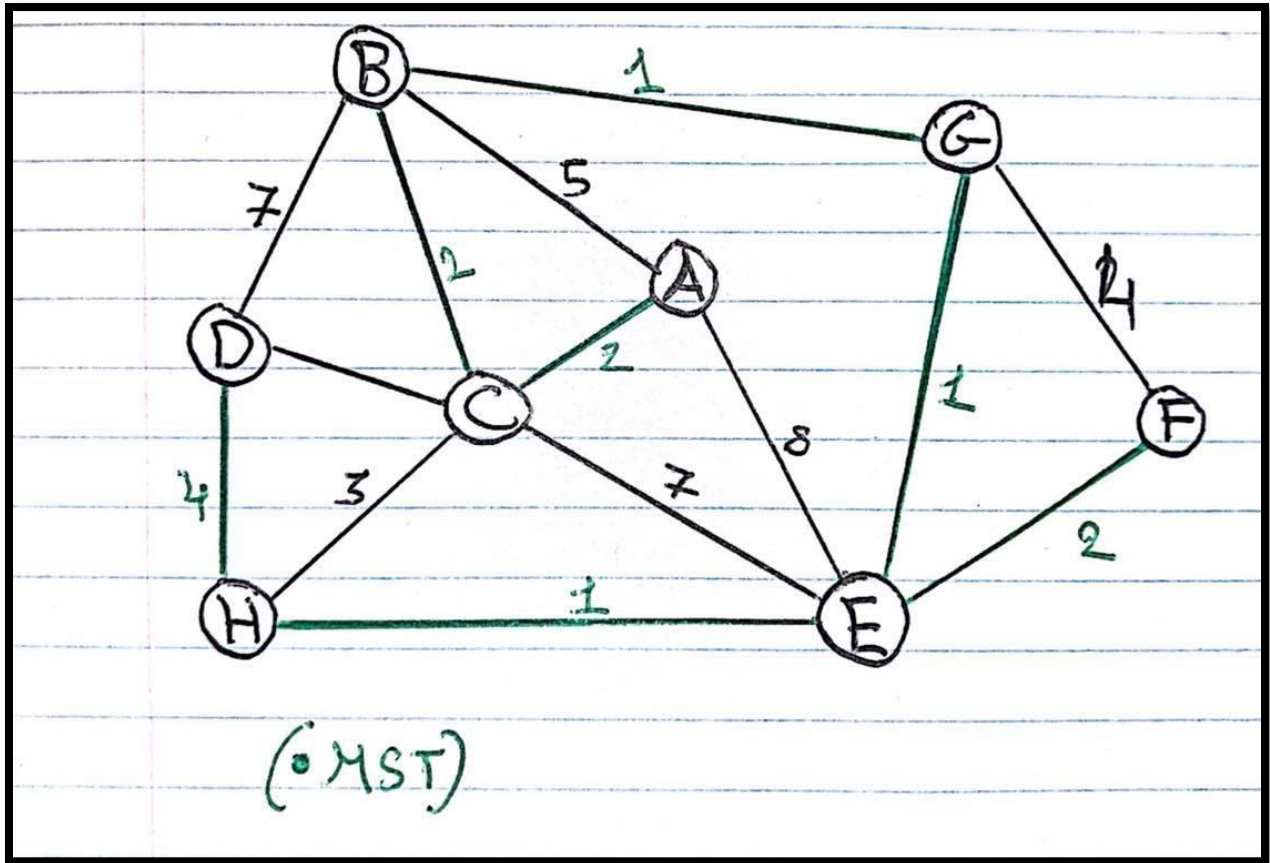
	Dist from A
A	0
B	4
C	2
D	6
E	6
F	7
G	5
H	5

CSI2110-D – Written Assignment #10

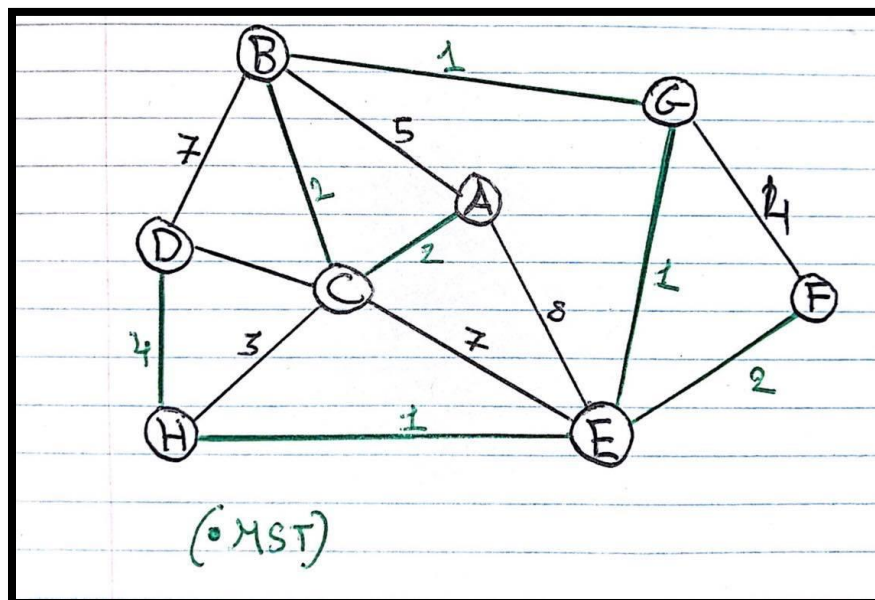
Alae Boufarrachene (300188539)

Question 2 :

a)



b)



CSI2110-D – Written Assignment #10

Alae Boufarrachene (300188539)

c)

Chosen edges by the Prim-Jarnik's	Chosen edges by the Kruskal's
A-C(2)	B-G(1)
C-B(2)	G-E(5)
B-G(1)	E-H(1)
G-E(1)	E-F(2)
E-F(2)	G-E(1)
E-H(1)	A-C(2)
H-D(4)	H-D(4)

Question 3 :

C -> B : $4+2+4+4+1+1+2 = 18$ (This is an MST)

C -> E : $4+2+1+4+4+5+2 = 22$ (This isn't an MST)

C -> F : $4+2+2+1+5+4+4 = 22$ (This isn't an MST)

The graph contains only one MST.