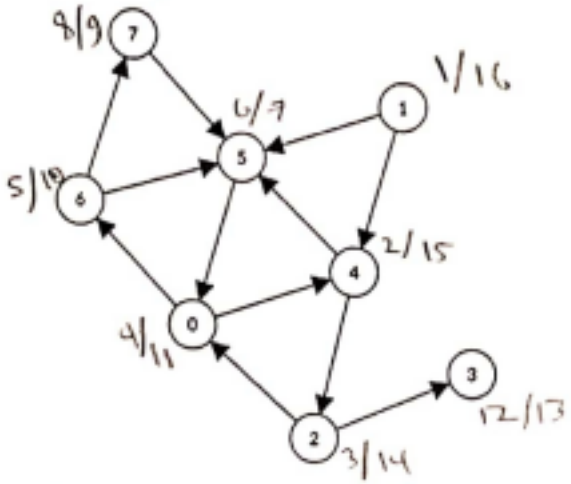
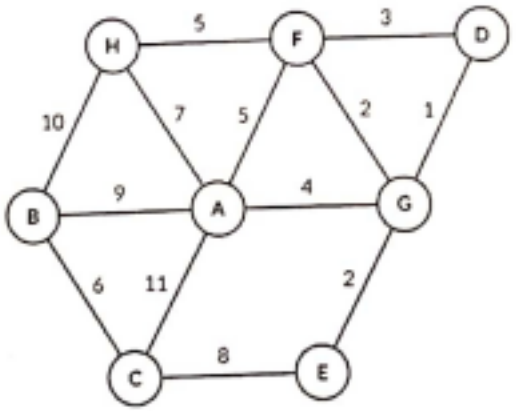
15

Name: Roll: Section: 14

[CO1] Using Proper algorithm and showing each steps find out the strongly connected components of the given graph. (9)



[CO3] Find out the Minimum Spanning Tree and Cost for the given graph using Kruskal's or Prim's algorithm. (6)

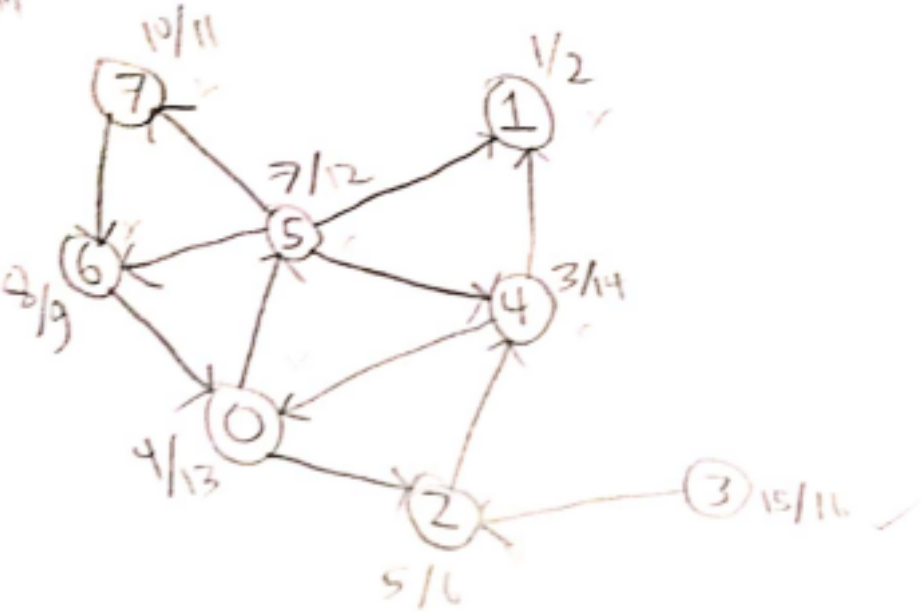


A1| i) DFS

ii) Reverse edges

iii) DFS from highest finish time

i) [illegible]



SCC

i) 1

ii) 4,0,2 ii) 4,0,2,5,6,7

iii) 4,0,5

iv) 0,5,7,6 iii) 3

A2)

D → 1 (D–G), 3 (D–F) X

G → 2 (G–F), 2 (G–E), 4 (G–A)

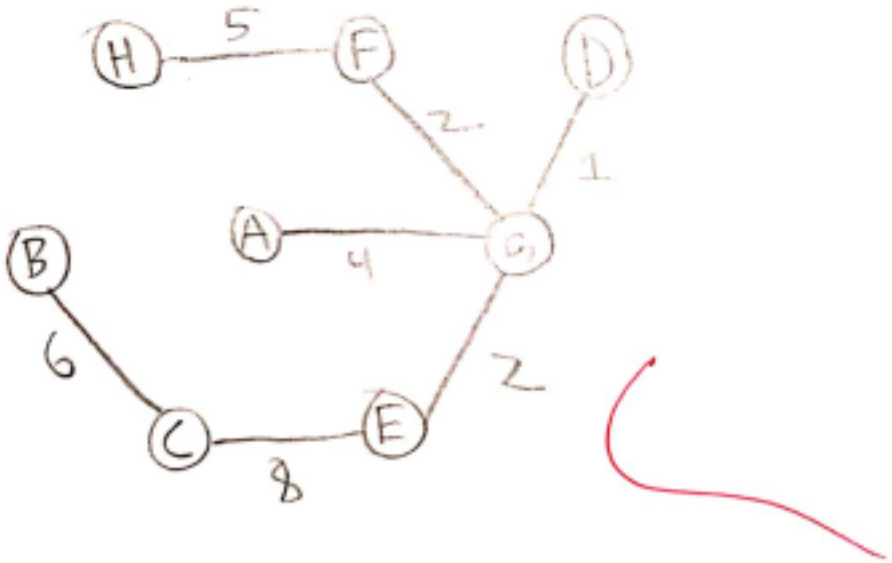
F → 5 (F–H), 5 (F–A) X

E → 8 (E–C)

A → 11 (A–C) X, 9 (A–B) X, 7 (A–H) X

H → 10 (H–B) X

C → 6 (C–B)



MST = 28