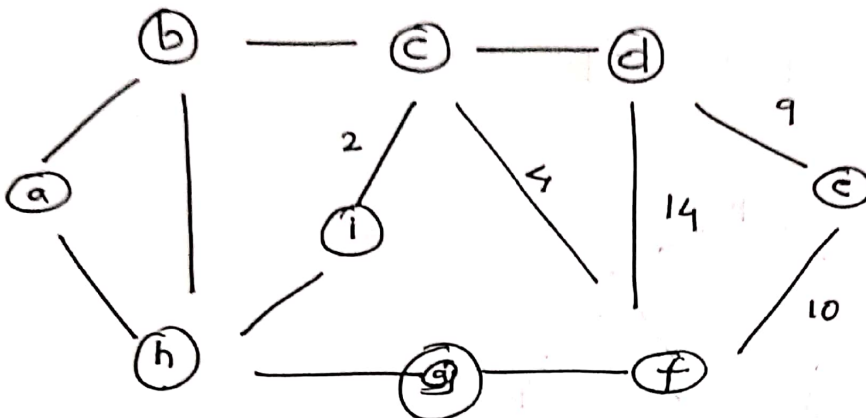


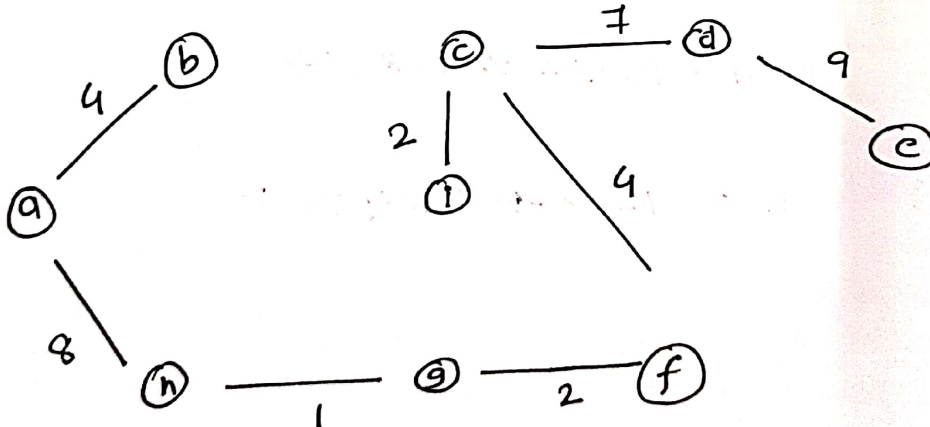
2.



hg 1    gt 2    ci 2    ab 4    cf 4    ig 6    hi 7    cd 7    ah 8    bc 8    de 9    ef 10    bh 11    df 14

9-vertices  
14 → edges.

minimum Spanning tree is  $(9-1) = 8$  edges



$$4 + 8 + 10 = 19 //$$