

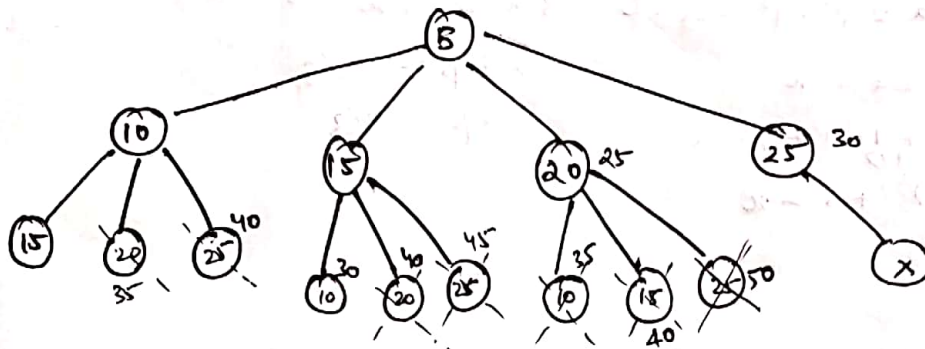
Q1)

RA1811028010086

using backtracking:

Aayush Mahajan

$$W_i = \{5, 10, 15, 20, 25\} \quad W = 30$$



Possible combinations are:  $\{5, 10, 15\}$

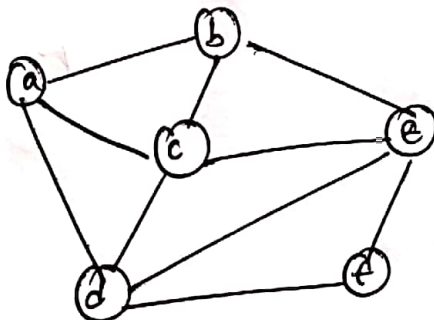
$\{5, 15, 10\}$

$\{5, 25\}$

$\{25, 5\}$

$\therefore 2$  subsets :  $\{5, 10, 15\}$  &  $\{5, 25\}$

Q2)

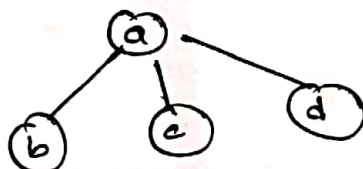


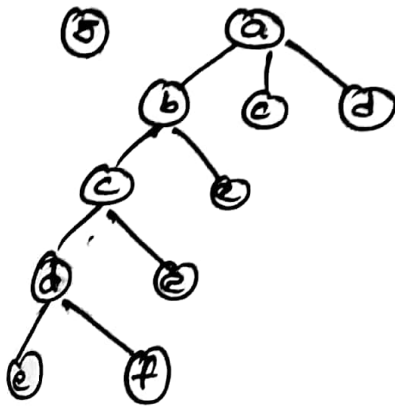
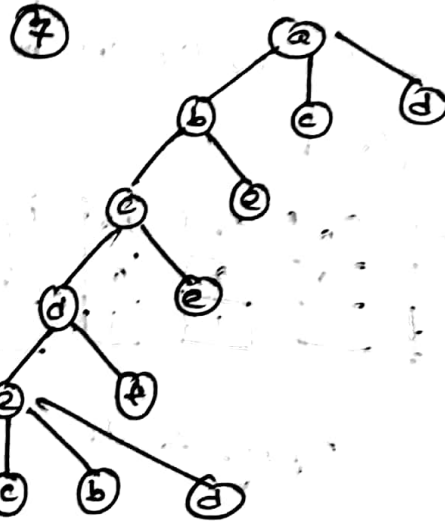
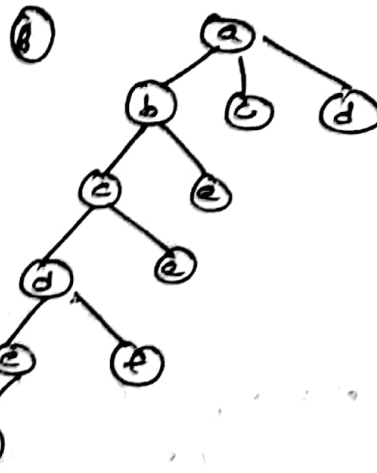
Roots :

1)

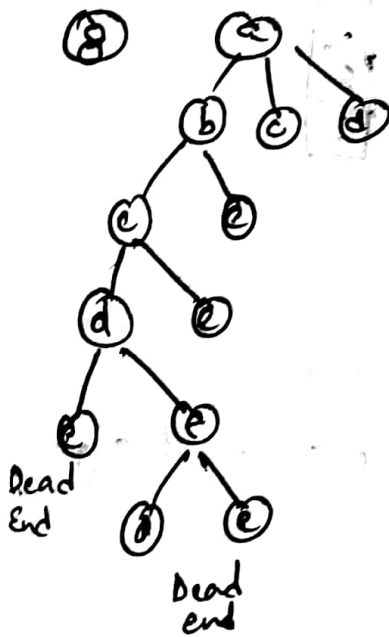


2)

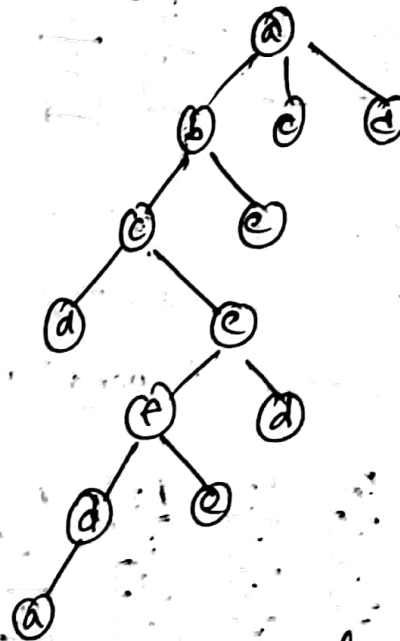




∴ Dead End



9. Solution:



①  
path: (a-b-c-e-f-d-a)

Algo:

- I. We create an empty array which is considered to vertex 0.
- II. Now, add vertices one by one and check for possible soln.
- III. while adding a new vertex take care to add a vertex which could possibly move us towards achieving results faster.
- IV. If adding vertices is complete, print path or exit the program with -1.