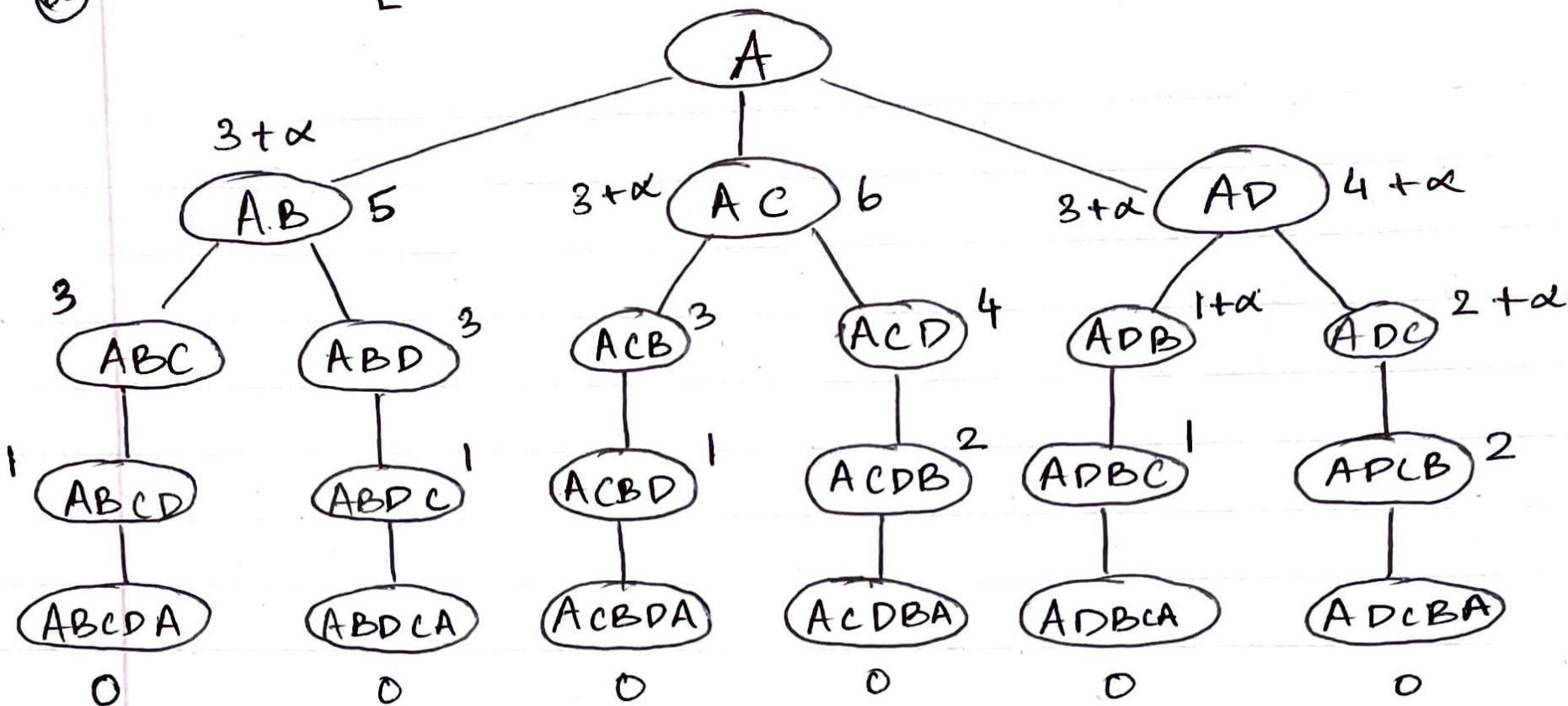


(a)

$$[5+\alpha, 7, 4+\alpha, 7, 4+\alpha, 5+\alpha]$$



Possible Paths for cycling paths.

ABCDA  $\rightarrow 5+\alpha$   
 ABDCA  $\rightarrow 7$   
 ACBDA  $\rightarrow 4+\alpha$   
 ACDBA  $\rightarrow 7$   
 ADBCA  $\rightarrow 4+\alpha$   
 ADCBA  $\rightarrow 5+\alpha$