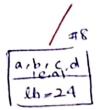
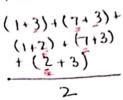
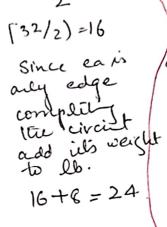
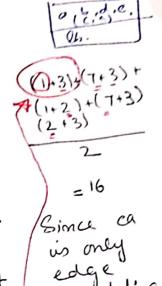
TSP: BMB. lb= [minimum weight edges on every veiler /2 [(domin edges on vertex q + 2 min edges om vertex b + 2 min edges on vertex c + 2 min edges on veiler d+ 2 min edges en veiler e)/27 = (1+3) + (3+6) + (1+2) + (3+4) + (2+3)[28/27 - 14 lours You cannot visit c before State Truhal Rb=14 General possible g _ c X paths Y #3 a re 16 19 a,c (8+1)+(3+6)+(1+2) not feasible (1+5)+(3+6)+ Solm (3+1)+(3+6)+(1+2) + (3+4)+ (8+2) terminaled mode (1+2)+(5+3)+ (2t3)= [38/2] =[28/2]=14= [31/2] = [5.5] = 19.=16 branch node 1 (lower lb) a bie a, b, d طلا (1+3)+(9+3) (1+3)+(2+3) (1+3)+(3+6)+ + (1+2)+ (3+4) + (1+2)+ (7+3) (1+6) +(3+4)+ +(9+2) +(2+3) (2+3)[37/2]=[18.5] 2 [32/2]=16 = [32/2]=16 = 19



16+8 = 24







edge
completing
H.C but
it is
already
added.in
lb
80-cost is

16.

Optimal bour is node 11.