23 - S2 - Q2

Q: (a) NAD + forward + backword

(b) critical path

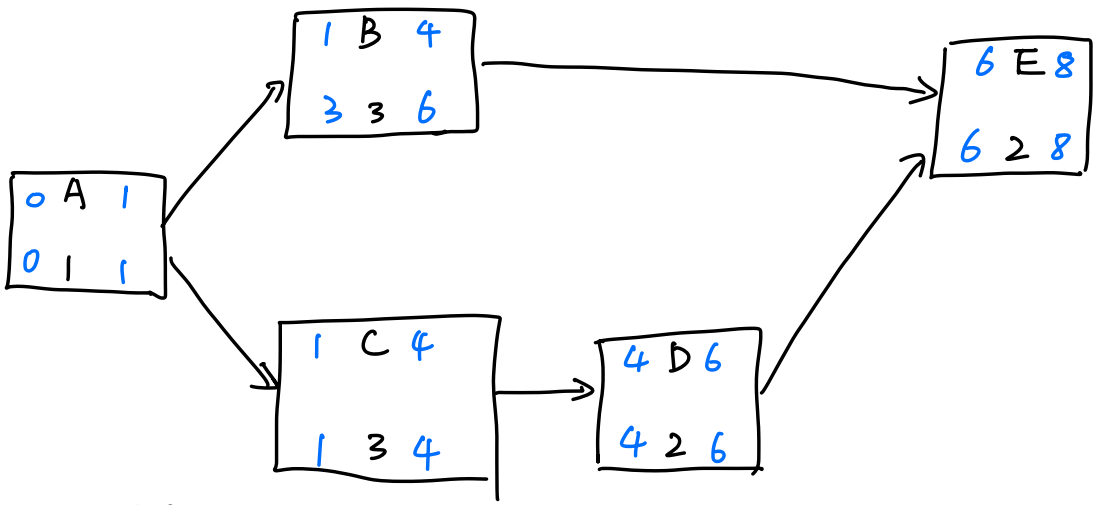
(c) EV, SPI week 7

(d) ETC

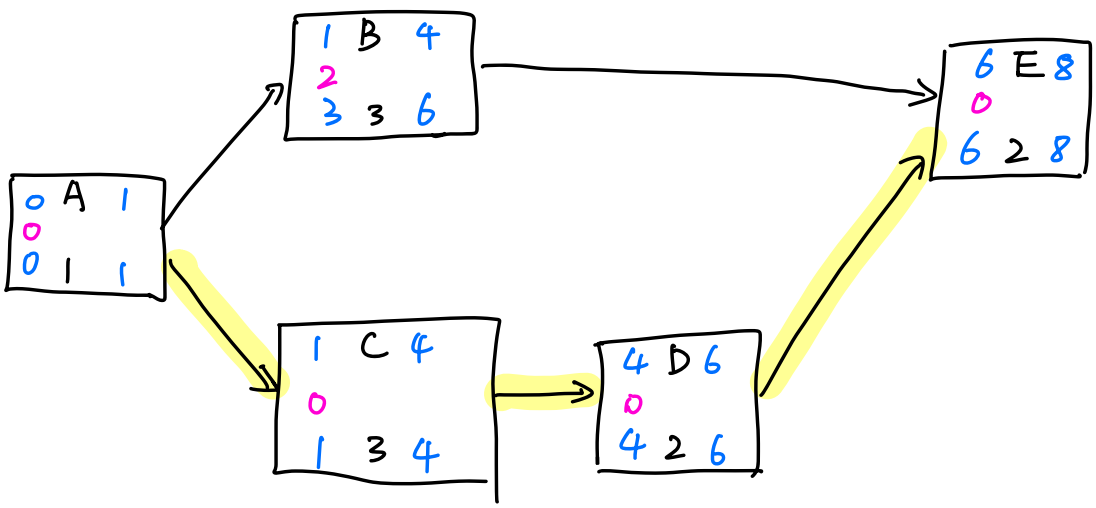
(e) CPI

(f) ECC

Solution (a)



(b) critical path : A – C – D – E



(c) $PV = 42 + 6 = 48$

$EV = 5 \times 100\% + 10 \times 90\% + 12 \times 50\% + 15 \times 40\% + 14 \times 0\%$

$= 5 + 9 + 6 + 6 + 0$

$= 26$

$$SPI = \frac{EV}{PV} = \frac{26}{48} = 0.5417$$

(d) Estimated Time to completion

$$= \frac{\text{Estimated total project schedule}}{\text{Schedule Performance Index}}$$

$$= \frac{8}{0.5417}$$

$$= 14.7683$$

So, estimated Time to completion is about 15 weeks.

(e) $AC = 37+3 = 40$

$$CPI = \frac{EV}{AC} = \frac{26}{40} = 0.65$$

(f) Estimated cost for completion

$$= \frac{\text{estimated total project budget}}{\text{cost performance Index}}$$

$$= \frac{5+10+12+15+14}{0.65}$$

$$= \frac{56}{0.65}$$

$$= 86.1538$$

So, the estimated cost for completion

is about 86 k. dollars.