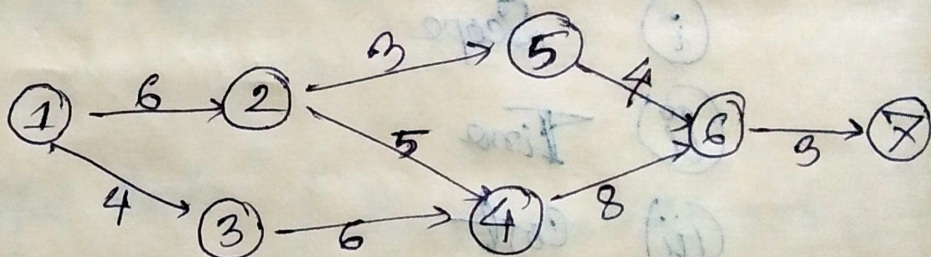


Activity	NT	NE	CT	CC	Cost Slope
<del>1-2</del>	<del>6 5 4</del>	60	4	100	20
1-3	4 3	60	2	200	70
<del>2-4</del>	<del>5 4 3</del>	50	3	150	50
2-5	3	45	1	65	10
<del>3-4</del>	<del>8 5 4</del>	90	4	200	55
<del>4-6</del>	<del>8 4</del>	80	4	300	30
5-6	4	40	2	100	35
<del>6-7</del>	<del>3 2</del>	45	2	80	

470/-

Indirect Cost = 10/day

Network



Paths

(i) 1-2-5-6-7

Days = 16 15 14 13

(ii) 1-2-4-6-7 = 22 21 20 16 15 14 13

(iii) 1-3-4-6-7 = 21 20 16 15 14 13



Step 1. Crash (1-2) by 1 day

$$\text{Crash cost (cc)} = 20$$

$$\text{Duration} = 21 \text{ days}$$

Step 2.  $\begin{matrix} \times & \times & \times & \times & \times & \times \\ (4-6) & (6-7) & (1-2, 1-3) & (1-2, 3-4) & (2-4, 1-3) & (2-4, 3-4) \end{matrix}$

55

35

90

75

120

105

(minimum)

Crash (6-7) by 1 day, cc = 35

$$\text{Crash Total} = 20 + 35 = 55$$

$$\text{Duration} = 20 \text{ days}$$

Step 3. Crash (4-6) by 4 days,

$$\text{cc} = 55 \times 4 = 220$$

$$\text{Crash Total} = 220 + 55 = 275$$

$$\text{Duration} = 16 \text{ days}$$

Step 4. Crash (1-2, 3-4) by 1 day, cc = 75

$$\therefore \text{Crash Total} = 275 + 75 = 350$$

$$\text{Duration} = 15 \text{ days}$$



Step 5. Crash (2-4, 3-4) by 1 day

$$CC = 105, \text{ Crash Total} = 350 + 105 = 455$$

$$\text{Duration} = 14 \text{ days}$$

Step 6.

Crash (1-3, 2-4) by 1 day

$$CC = 120, \text{ Crash Total} = 455 + 120 = 575$$

$$\text{Duration} = 13 \text{ days}$$

We have nothing left to crash now.

$$\therefore \text{Total Cost} = \text{Normal cost} + \text{Crash cost} + \text{Indirect Cost}$$

$$= 470 + 575 + (13 \times 10)$$

$$= 1175$$

Md. Alamgir Kabir (BSSE 0907)