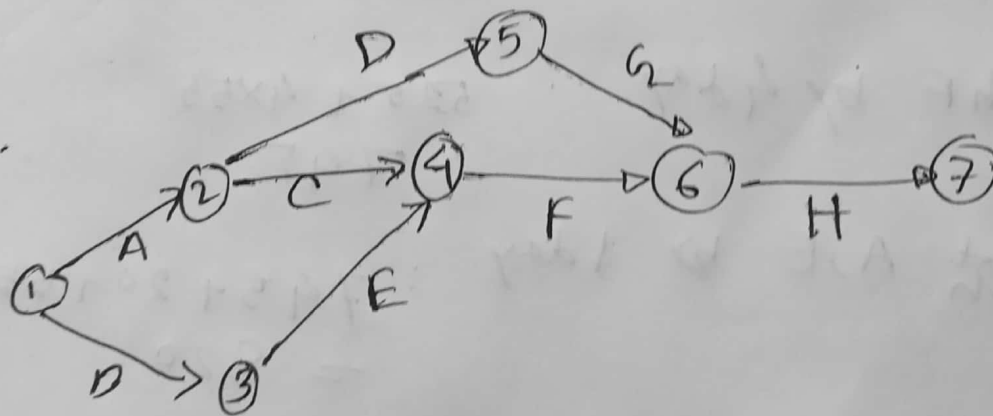


②

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BSE: 0917

Activity	Time		Cost		Cost Slope
	Normal	Crash	Normal	Crash	
A (1-2)	6	4	60	100	20
B (1-3)	4	2	60	200	170
C (2-4)	5	3	50	150	50
D (2-5)	3	1	45	65	10
E (3-4)	6	4	90	200	55
F (4-6)	8	4	80	300	30 55
G (5-6)	4	2	40	100	30
H (6-7)	3	2	45	80	35
			470	1195	



A → C → F → H [22] Critical path
 A → D → G → H [16]
 B → E → F → H [21]

are critical

Path reduction

Activity	Path reduction			Cost slope	Bt the cost slope	Time remaining
	A→C→F→H	A→D→G→H	DE-F-H			
A(1-2)	✓	✓		20	10	2
B(1-3)			✓	70	70	2
C(2-4)	✓			50	50	2
D(2-5)		✓		10	10	2
E(3-4)			✓	55	55	2
F(4-6)	✓		✓	55	$27\frac{1}{2}$	4
G(5-6)		✓		30	30	2
H(6-7)	✓	✓	✓	35	$11\frac{2}{3}$	1

A-X-P-H-2X 21 20 16 15 14 13

A-D-Q-H-16 15 14 13

B-B-F-H-21 20 16 15 14 13

A-X-X-O

B-X-1

C-X-X-O

D-2

E-X-X-O

F-X-O

G-2

H-X-O

① Cut A by 1 day : $470 + 20 = 490$

② [A-C-F-H, B-E-F-H] Both are critical combination:

(A, B), (A, E), (C, B), (C, E), (~~F, B~~), (~~F, H~~) (E, C)
80 65 120 105 27½, 11½

Crash H by 1 day : $490 + 35 = 525$

③ Crash F by 4 day : $525 + 4 \times 55 = 745$

④ Cut A, E by 1 day : $745 + 20 + 55 = 820$

⑤ Crash C, E by 1 day : $820 + 50 + 55 = 925$

⑥ Crash C, B by 1 day : $925 + 50 + 70 = 1045$

$$\text{minimum days} = \underline{13}$$

$$\therefore \text{Indirect Cost} = 10 \text{ ₹ Per day}$$

$$\begin{aligned} \therefore \text{Total Cost} &= 1045 + 13 \times 10 \text{ ₹} \\ &= 1045 + 130 = 1175 \text{ ₹} \end{aligned}$$