

Q. R. card, 1-570540

(1)

ANSWERS

Q1] a. unbounded solution

b. A-2, B-4, C-5, D-1, E-3 COST = 21

c. No. of jobs ahead of the set brought in = $5/3$

Idle time = 3 hours.

d. $(1,1) = 5$, $(1,4) = 2$, $(2,3) = 7$, $(2,4) = 2$, $(3,2) = 8$, $(3,4) = 10$

e. theory

Q2] A. $x_1 = 3$

$x_2 = 1$

$Z_{\max} = 11$

B. EMA by selling = 12,000 rs.

EMA by drilling = 77,200 rs thus drilling option to be selected.

Q3] A.

Activity	1-2	1-3	2-3	2-4	3-4	3-5	4-5	4-8	5-6	5-7	6-7	6-8	7-8
Total float	0	2	0	9	0	3	0	7	0	1	0	1	0

Critical path = 1-2-3-4-5-6-7-8

Duration = 32 months

B. $(1,2) = 10$

$(2,1) = 60$

$(2,2) = 10$

$(2,3) = 10$

$(3,1) = 15$

$(4,3) = 40$

Optimum cost = 595 Rs.

Q4] A. $x_1 = 0$

$x_2 = 60$

$x_3 = 120$

$Z_{\max} = 660$

B. Optimal quantity = 750 at cost of Rs. = 1,842.30

02

- Q5] A. Player A = $(2/5, 3/5, 0)$
Player B = $(1/2, 1/2, 0)$
Game value = 4
- B. Average no. of bikes waiting = 2.8
Average no of empty spaces in truck = 0.27

Q6] A. Game value = 6

B. theory

C. theory