

DATE:22-09-2018

TIME: 9-45 to 10-45

TOTAL MARKS:40

Saturday

Que.1

(a) Discuss in brief various Models which are used in O.R. (10)

(b) Minimize $Z = 10x + 5y$ under the following constraints: (10)

$$x \leq 30 ; 5x + 4y \geq 100 ; y \leq 15 ; 3x + 5y \leq 150 ; x, y \geq 0$$

O.R

(a) What is mean by unbalanced transportation Problem? Explain with one illustration. (10)

(b) A company has 5 jobs and 5 machines. Assign the 5 jobs to the 5 machines as to minimize total time. (10)

Machines

Jobs

	A	B	C	D	E
1	24	6	15	9	10
2	4	4	11	26	24
3	13	17	13	16	13
4	8	10	80	12	8
5	15	17	10	10	10

Que.2

(a) What is Sequencing Problem? Explain any one Model of it. (10)

(b) Find the sequence that minimizes the total elapsed time required to complete the following jobs on two machines. (10)