

G.V.M.'s G.G.P.R. COLLEGE OF COMMERCE AND ECONOMICS

FARMAGUDI - PONDA

B.C.A. SEMESTER V - ISA III

OPERATIONS RESEARCH

Duration: 45 mins

Max. marks: 15

Answer the following:

(5 x 3 = 15)

1. Solve the following 2 - person zero sum game:

	B1	B2	B3
A1	5	7	11
A2	2	-1	8
A3	18	-6	10

2. Five jobs are performed first on machine X and then on machine Y. the time taken in hours by each job on each machine is given below:

Jobs	A	B	C	D	E
Time on machine X	6	2	10	4	11
Time on machine Y	3	7	8	9	5

Determine the optimal sequence of jobs that minimizes the total elapsed time to complete the jobs. Also compute the minimum time.

3. A company has three plants X, Y and Z from which it supplies to four markets A, B, C and D. determine the optimal transportation plan from the following table giving the plant to market shipping costs, quantities available at each plant and quantities required at each market.

Plants	Markets				Availability
	A	B	C	D	
X	13	11	15	20	2
Y	17	14	12	13	6
Z	18	18	15	12	7
Requirement	3	3	4	5	

----- ALL THE BEST! -----