

IIHMR UNIVERSITY
Institute of Health Management Research

**Master of Business Administration
Hospital and Health Management**

**Batch-21st (2016-2018)
Health Management
Operations Research**



Term Examination

Time - 3 Hour

MM-70

Instructions:

Please note that you have to answer all SIX questions.

SECTION - A

1. Write short notes on : (4x5=20marks)
 - a) Game theory
 - b) Role of inventory
 - c) Linear programming
 - d) Comparison between CPM and PERT.
2. Describe in brief the various methods to handle decision under uncertainty? (8x1=8marks)
3. Describe the basic characteristics of inventory control system? (15x1=15marks)

SECTION -B

4. In a given factory there are three machines M_1, M_2 and M_3 , used in making two products P_1 and P_2 respectively. One unit of P_1 occupies M_1 for 5 minutes, M_2 for 3 minutes and M_3 for 4 minutes respectively. The corresponding figures for one unit of P_2 are for M_1 1 minute, M_2 4 minutes and M_3 for 3 minutes respectively. The net profit per unit of P_1 produced is Rs 30 and for per unit of P_2 produced is Rs 20 (independent of whether the machines are used to full capacity or not). What production plan gives the most profit? Formulate this linear programming problem. (12x1=12marks)

5. Describe the network for :

a) ES and EF

b) LS and LF

Activity	Immediate	Completion
	Predecessors	Time (weeks)
A	-	5
B	-	6
C	A	4
D	A	3
E	A	1
F	E	4
G	D,E	14
H	B,C	12
I	G,H	2
Total = 51		

(15x1=15marks)

