

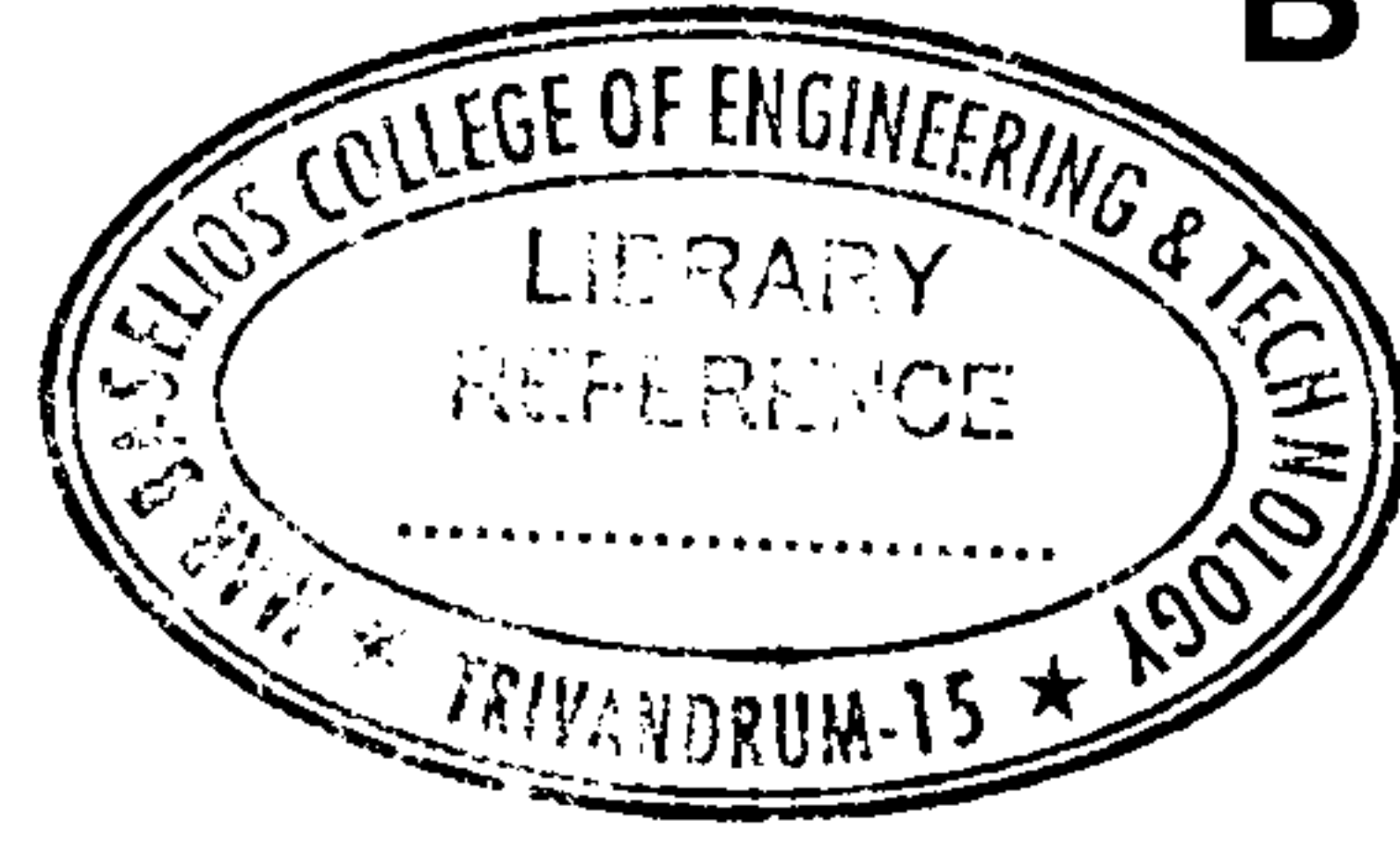


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B – 3442

Reg. No. :

Name :



**Seventh Semester B.Tech. Degree Examination, December 2016
(2013 Scheme)**

**13.701 : PRINCIPLES OF MANAGEMENT AND DECISION MODELING
(MPU)**

Time : 3 Hours

Max. Marks : 100

PART – A

Answer **all** questions. **Each** question carries **2** marks.

1. List the essential features of the “process of management”.
2. Compare mechanistic and organic structures of organisations.
3. Mention the privileges of private companies.
4. Define plant layout.
5. Enumerate the objectives of personnel management.
6. Name the five different activities performed by a salesman.
7. Differentiate between MAD and BIAS errors of forecasting.
8. What are the distinct phases involved in decision making ?
9. Distinguish between PERT and CPM.
10. When simulation is preferable ?

(10×2=20 Marks)

P.T.O.



PART – B

Answer **any one full** question from **each** Module.

Module – I

11. a) Give an account of the functions performed at various levels of management. **10**
 b) Describe the important principles required for effective delegation of authority. **10**
12. Discuss about the features, advantages and limitations of partnership companies. **20**

Module – II

13. Discuss in detail about the characteristics, merits and demerits of process layout. **20**
14. Discuss in detail about the different types of internal and external sources of recruitment along with their advantages and disadvantages. **20**

Module – III

15. Write short notes on : **20**
- i) Market mix
 - ii) Market segmentation
 - iii) Product life cycle and
 - iv) Causal methods of forecasting.
16. a) The processing time in hours for the jobs when allocated to the different machines are indicated below. Assign the machines for the jobs so that the total processing time is minimum. **10**

		Machines				
		M ₁	M ₂	M ₃	M ₄	M ₅
Jobs	J ₁	9	22	58	11	19
	J ₂	43	78	72	50	63
	J ₃	41	28	91	37	45
	J ₄	74	42	27	49	39
	J ₅	36	11	57	22	25



b) Solve the following transportation problem using Vogel's Approximation Method. 10

		Warehouse						Available
		W ₁	W ₂	W ₃	W ₄	W ₅	W ₆	
Factory	F ₁	9	12	9	6	9	10	5
	F ₂	7	3	7	7	5	5	6
	F ₃	6	5	9	11	3	11	2
	F ₄	6	8	11	2	2	10	9
Requirement		4	4	6	2	4	2	

Module – IV

17. a) Consider a modified form of “matching based coins”. The matching player is paid Rs. 8 if the two coins turn both heads and Re. 1 if the coins turn both tails. The non-matching player is paid Rs. 3 when the coins do not match. Given the choice of being the matching or non-matching player, which one would you choose and what would be your strategy? 10

b) The mean arrival rate to a service centre is 3 per hour. The mean service time is found to be 10 minutes per service. Assuming Poisson arrival and exponential service time, find (i) utilisation factor for this service facility (ii) probability of 2 units in the system (iii) expected no. of units in the queue (iv) expected time in minutes that a customer has to spend in the system. 10

18. The following refers to a project network :

Activity	A	B	C	D	E	F	G	H	I	J
Predecessor	—	A	A	A	A	E	D	G, F	C, H	J
Duration in days	1	4	2	3	2	3	2	1	3	2
Crew required per day	7	1	5	4	3	6	2	9	10	8

- a) Draw the network.
- b) Find the total float, free float and independent float of each activity.
- c) Determine the critical path and project completion time.
- d) Draw the graph showing optimum requirements versus time.