

III B.Tech II Semester Supplementary Examinations, April/May 2005
MANAGEMENT SCIENCE
(Common to Mechanical Engineering, Metallurgy & Material Technology
and Production Engineering)

Time: 3 hours

Max Marks: 70

Answer any FIVE Questions
All Questions carry equal marks

1. Explain the basic functions of Management illustrating them clearly with examples
2. "Organisation charts are tools for only indicating the flow of authority" comment on the statement explaining clearly as to how to draw a good organisation chart.
3. What are the methods for Merit rating? Explain them briefly.
4. (a) Explain the following:
 - i. Inspection by variables
 - ii. Inspection by attributes.
- (b) A paper mill produces a particular grade of paper in continuous roll. Along the length, every 10 metres, visual inspections for pinholes are made and the counts are recorded as below.

No. of Section of 10mtr. length	1	2	3	4	5	6	7	8	9	10
Defects (in numbers)	6	3	2	5	4	0	5	6	4	2

Draw appro-

- appropriate control chart giving the limits and comment on the process
5. (a) What are the component functions of Integrated materials management?
 - (b) Calculate the EOQ, number of orders to be placed in a year and the annual ordering and inventory carrying cost given the following.
 Annual demand : 30,000 units
 Price : Rs.100 ea
 Ordering cost : Rs.400 per order
 Inventory carrying cost : 20% per annum on the value of inventory
 6. (a) What are the steps in method study?
 - (b) What are process charts? Illustrate with examples.
 7. (a) What is marketing mix?
 - (b) Suggest suitable marketing channels for the following products.
 - i. 'V' belt produced by a medium entrepreneur at AP.
 - ii. Recorded Music album CD marketed by ETV (Eeenadu TV) channel Group.

8. List of activities for erecting a canteen in the factory is given below. Job A must precede all other jobs. Job E must follow all others. Apart from this, jobs can run concurrently.

Code	Job description	NORMAL		CRASH	
		Duration days	Cost Rs.	Duration days	Cost Rs.
A	Lay foundationAnd build walls	5	3,000	4	4,000
B	Tile rooting	6	1,200	2	2,000
C	Install Electricity	4	1,000	3	1,800
D	Install Plumbing	5	1,200	3	2,000
E	Connect services to finish	3	1,600	3	1,600

- (a) Draw the network and identify critical path.
 (b) If indirect costs are Rs.300 per day crash for optimum cost.

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