

**III B.Tech II Semester Supplementary Examinations, Apr/May 2008**  
**MANAGEMENT SCIENCE**  
( Common to Mechanical Engineering, Computer Science & Engineering,  
Chemical Engineering, Information Technology, Metallurgy & Material  
Technology, Electronics & Computer Engineering and Production  
Engineering)

Time: 3 hours

Max Marks: 80

**Answer any FIVE Questions**  
**All Questions carry equal marks**

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1. What are the managerial functions in any service providing organization like Bharat Sanchar Nigam Limited (BSNL), Life Insurance Corporations of India etc., [16]
2. (a) Explain and evaluate line and staff organization.  
(b) Where do you find it useful? [10+6]
3. (a) What are the objectives of plant layout?  
(b) Explain the factors influencing plant layout. [8+8]
4. (a) Define EOQ. Whether the factors that determine EOQ  
(b) A firm requires 1000 units of a particular component. It pays Rs.50 per component to the vendor. The ordering cost is Rs.250 per order. The inventory carrying cost is 20% of the inventory per annum. Calculate
  - i. EOQ
  - ii. Number of orders per year.
  - iii. Total annual cost. [6+10]
5. What are the key functions of a Human Resource Manager? [16]
6. Explain in detail the different methods of job evaluation? [16]
7. What are the external factors to be considered while assessing opportunities and threats? [16]
8. The following are the activities identified in scheduling the time required to install an improved local area network (LAN). Draw the PERT network and identify the

critical path.

[8+8]

Activity identity	Description	Average duration $t_e$ In days	Logical sequence
a	Establish projectParameters	2	-
b	Assess present LAN	5	a
c	Present analysis	1	b
d	Refine objectives	3	a
e	Purchase upgradation equipment	6	c,d
f	Test hardware	1	e
g	Test software	2	f
h	Conduct training	4	e
i	Evaluate up gradation	2	g,h

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1. (a) Why is management considered as a profession and what factors make it a profession?  
(b) If you are appointed as a manager in a medium sized manufacturing company, what activities do you have to perform? Explain. [8+8]
2. Explain the concepts of line, line & staff and functional organizations. Also illustrate. [16]
3. (a) What are the objectives of plant layout?  
(b) Explain the factors influencing plant layout. [8+8]
4. (a) Explain the concept of 'Economic Order Quantity'.  
(b) Explain the variables that go into the determination of EOQ.  
(c) Show how the formula is derived. [5+6+5]
5. (a) What is the role of Human Resource Manager in development and growth of an organization?  
(b) Explain how 'Human Resource Planning' process can be formulated? [8+8]
6. (a) What is Induction? What is the purpose of induction?  
(b) What is the difference between Training and Development? Explain. [16]
7. How do you carry out SWOT Analysis for a manufacturing unit? Explain. [16]

8. The following table gives required information of a project

Activity	Normal cost		crash cost	
	days	cost in Rs.	Days	cost in Rs.
1-2	3	500	2	1000
1-3	2	750	1	1500
1-4	6	1400	4	2600
2-4	5	1000	3	1800
2-5	7	1150	6	1450
3-4	2	800	2	800
4-5	4	1000	2	2400

The indirect cost is Rs.650 per day. Determine the optimum cost and time for the project. [16]

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1. What is Maslow's hierarchy of heeman needs? Explain. [16]
2. Compare and contrast formal and informal organization. Why each one is significance? [16]
3. (a) What are the objectives of plant layout?  
 (b) Explain the factors influencing plant layout. [8+8]
4. (a) What are the costs associated with effective inventory control?  
 (b) How would you deal with them in modern management? [8+8]
5. Discuss in detail the objectives and functions of Human Resource Management? [16]
6. Explain different methods of on-the-job training and off-the-job training. [16]
7. (a) Explain the concept nature and scope of corporate planning.  
 (b) What are the advantages and limitations of corporate planning. [8+8]
8. You are given the following data:

Activity	LogicalSequence	Time (days)		
		Optimistic time ( $t_o$ )	Most likely time ( $t_m$ )	Pessimistic time ( $t_p$ )
A	-	4	8	10
B	-	8	12	18
C	A	6	10	12
D	C	6	8	12
E	B	10	14	18

Draw a network diagram after determining

- (a) expected task time and their variance
- (b) earliest and latest expected time to reach each node,
- (c) critical path and
- (d) probability of completing the project in 48 days. [4×4]

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1. (a) What are the principles of management as outlined by Fayol?  
 (b) Explain whether they hold good in today's context. [10+6]
2. (a) What do you understand by decentralization?  
 (b) How do you determine the need for decentralization? Explain. [8+8]
3. Give the basic procedure involved in work study. [16]
4. (a) Define EOQ. Whether the factors that determine EOQ  
 (b) A firm requires 1000 units of a particular component. It pays Rs.50 per component to the vendor. The ordering cost is Rs.250 per order. The inventory carrying cost is 20% of the inventory per annum. Calculate
  - i. EOQ
  - ii. Number of orders per year.
  - iii. Total annual cost. [6+10]
5. Discuss in detail the objectives and functions of Human Resource Management? [16]
6. What is grievance and what are the general causes for grievance among workers in an organization? Explain how you can address them. [16]
7. What is strategic business unit and what is its role and relevance in corporate planning? Illustrate. [16]
8. From the activity details given below, determine the optimal project duration and optimal project cost. Indirect cost is Rs. 75 per day. [16]

Activity	Normal		Crash	
	Time (days)	Cost in Rs.	Time(days)	Cost in Rs.
1-2	8	100	6	200
1-3	4	150	2	350
2-4	2	50	1	90
2-5	10	100	5	400
3-4	5	100	1	100
4-5	3	80	1	100

Code No: RR320301

Set No. 4

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