GUJARAT TECHNOLOGICAL UNIVERSITY
M.B.A.- SEMESTER – II • EXAMINATION – WINTER 2012

Subject code: 820006   **Date: 10-01-2013**

Subject Name: Production & Operations Management

Time: 10:30 am – 01:30 pm   **Total Marks: 70**

Instructions:
1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1 **(a)** Define Operations Management and explain scope of Operations Management. **07**

(b) What location factors make India attractive to BPO companies? **07**

Q.2 **(a)** The following is the table which gives you the lists of materials used by one industrial unit. Based on ABC Analysis, suggest Plant Manager, which materials require high, moderate and least attention. **07**

No.	Item	Annual Consumption (Units)	Price (Per Unit) in Rupees
1	Mannitol	180	30
2	Analgin	80	175
3	Suplhone	260	15
4	Diazepam	120	40
5	Pennicilin	200	15
6	Aspirin	360	10
7	Vitamin C	340	5
8	Gentamycin	100	160
9	Ampicillin	120	255
10	Dexamethasone	240	10

(b) A company that produces electronics products, including LED TV and music gadgets, is attempting to forecast what new products and product innovations might be technologically feasible and that customers might demand 10 years into the future. Speculate on what type of methods it might use to develop this type of forecast. **07**

OR

(b) Based on following information; **07**

Annual consumption	12,000 units (360 days)
Cost per unit	Re.1
Ordering cost	Rs. 12 per order
Inventory carrying charge	24%
Normal lead time	15 days
Safety stock	30 days consumption

Find out:
    (i) How much should be ordered each time?
    (ii) When should the order be placed?

(iii) What should be the inventory level if immediately before the material ordered is received?

Q.3 **(a)** Define the key performance measures to be considered when selecting a schedule. **07**

(b) Discuss the steps involved in the process of Project Management. **07**

OR

Q.3 **(a)** Critically evaluate CPM/PERT technique of Project Management **07**

(b) Seven jobs are performed first on Machine A and then on Machine B. The time taken (in hours) by each machine is given below: **07**

Job	1	2	3	4	5	6	7
Time on Machine A	5	3	2	10	12	6	8
Time on Machine B	3	2	5	11	10	7	3

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

Q.4 **(a)** Discuss the usefulness of waiting line analysis to a manager. **07**

(b) Discuss the role of Information technology in Supply chain integration. **07**

OR

Q.4 **(a)** What is Outsourcing? Why company outsource? **07**

Q.4 **(b)** Define the four basis waiting line structures found in service organizations. **07**

Q.5 **(a)** What do you mean by "Kaizen"? What are the key features of Kaizen? **07**

(b) "Responsibility for process performance and quality is shared by all the employees of an organization." Discuss. **07**

OR

Q.5 **(a)** On which quality management principles, ISO 9000 certification is given to a company? **07**

(b) Discuss what is Kanban and how it operates? **07**

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