



CII Institute of Logistics

Post Graduate Diploma in Supply Chain Management
Semester-end Examination June 2008

OPERATIONS MANAGEMENT-I

Time : Three Hours

Marks : 100

Part A

Answer all questions (10 x 1 = 10 Marks)

1. Work that concentrates on some aspect of a product or service is called
 - a. Specialization
 - b. Job enrichment
 - c. Job analysis
 - d. Motivation
2. Time study and method study combined together is called as
 - a. Motion study
 - b. Therbligs study
 - c. Work study
 - d. All the above
3. A pattern of continuous increase or decrease in values of demand is called as
 - a. Cyclical
 - b. Seasonal
 - c. Trend
 - d. Average
4. A Gantt chart is used for
 - a. Cost volume profit analysis
 - b. Investment analysis
 - c. Scheduling
 - d. Method study
5. Man-machine chat can be used for
 - a. Method study
 - b. Scheduling
 - c. Project management
 - d. MRP
6. Lead time variability and demand variability are considered as zero in
 - a. MRP model
 - b. EOQ model

- c. ABC model
- d. None of the above

7. Dependent demand items can use one of the following for effective inventory control
 - a. HR Planning
 - b. MRP
 - c. ECR
 - d. GDP
8. X-Bar chart is used to control
 - a. central tendency of the variable
 - b. Dispersion of the variable
 - c. No. of defects
 - d. All the above
9. 'A' class items are those, whose annual consumption value is high (TRUE/FALSE)
10. Acceptance sampling is used to control quality while buying materials (TRUE/FALSE)

Part B

Answer any three (3 x 15 = 45)

1. What is method study? Explain its procedures with charts. What are the uses of method study?
2. Six jobs must be processed through machine. The processing time for each job is also shown. Calculate performance measures-Flow time, average tardiness and number of tardy jobs using FCFS and SPT

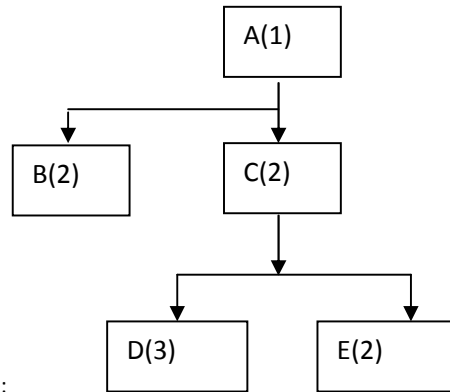
Job	M/C-A (Time in Minutes)	Due date
1	10	21
2	6	12
3	7	10
4	8	20
5	3	7
6	6	13

3. What is ABC analysis? Explain with an example.
4. Explain the acceptance sampling with OC curve.

Part C

Answer All Questions (3 x 15 = 45)

1. Develop a MRP plan using the following details.



Master production schedule:

Period	1	2	3	4	5	6
Gross requirements	--	200	--	80	150	200

Item	Stock on Hand	Lead time in Periods
A	100	1
B	30	2
C	30	1
D	50	2
E	100	3

2. Suppose that the R & B Beverage company has a soft-drink product that has a constant annual demand rate of 3600 cases. A case of the soft-drink costs \$3. Ordering costs are \$20 per order and holding costs are charged at 25% of the cost per unit. There are 250 working days per year and the lead time is 5 days. Identify the following aspects of the inventory policy.

- Economic order quantity
- Reorder point
- Cycle time
- Total annual cost

3. Select any four process control variables or attributes in a Food restaurant. Explain how you use process control charts for variables and attributes to maintain quality of service at the restaurant.
