

**K. J. SOMAIYA INSTITUTE OF MANAGEMENT STUDIES AND RESEARCH**  
**Program: PGDM – A & B - First Trimester (Batch 2017 - 19)**  
**Subject: Operations Management**  
**\_(End Term Examination)**

Maximum Marks: 50 Marks

Date: 27<sup>th</sup> Sept 2017

Duration: 3 hrs

Notes:

1. Answer all questions as per instructions in each section
2. Make suitable assumptions if required and state them.

**Question 1** – Case : Eagle Manufacturing Company. **(2\*5 = 10 MARKS)**

The Eagle Machine Company has fallen on bad times. Eagle, a maker of specialty restaurant equipment, has sales totaling Rs 72 million, but sales are declining while cost continues to increase. If things continue in this direction, Eagle may soon have to close its doors.

At the Special Management meeting the President lays it on the line! He demands that the firm breakeven in the remaining quarter of the year. For next year he calls for profits - right away. "Just think what you can do to that chart! Every penny you save is profit!. So take a close look at what you buy. I don't care how you make your savings - by negotiations, inventories, imports anything! But put the screw on tight- right away!"

"Start on inventories that are sky high. So get together with manufacturing on a 10% cut!. We have got Rs 12 million worth of materials stashed away around here, and a 10% cut would save at least 3 lakhs a year in carrying charges. At the same time get your payroll and operating expenses down by 10%. That is in line with our company wide cut back. I know this hurts, Sally , because, have got some mighty fine people here in purchasing, but we can't be sentimental in these days. Our overheads have got to come down or we are dead! "

I am having an Executive Committee meeting in one week. Have your plans ready by that time! We are betting on you, Sally. You have got to get us out of the hole. I know you can do it"

Sally starts a review of her purchases, which totals to Rs 4,32,00,000 per year. Eagle purchases a variety of materials, ranging from few pounds of raw metals to sizable quantities of sheet metal.

Her department consists of Sally, three buyers and four clerks. Salaries, fringes and expenses come to 3,70,000 a year. The purchasing department is responsible only for buying and expediting. The Manufacturing Manager handles production, inventory control, receiving and traffic. Sally reports to the President as do other departmental heads.

Sally learns from inventory control that Raw Stock Inventory is Rs 122 lakhs. The Marketing Manager controls the finished stock. Sally wonders how she can deliver the cost reduction and still keep department and supplier relations in shape for the long pull.

- a).What action should Sally take to reduce inventories by 10%?
- b) In what ways could the cost of goods purchased be reduced ?

**Question 2** – Answer any two of these questions (2\*5 = 10 MARKS)

2. A - A restaurant has a demand of 500 sweet dishes in January and 600 sweet dishes in February. The February forecast was 700 dishes. With a smoothing coefficient of 0.8 calculate the forecast for the month of March this year.

2. B - A manufacturer is using some raw material which is used in the production process. The raw material is procured from a local supplier. The stores have given the following information.

Annual Demand for the raw material = 9000 units

Assume 300 working days in a year, Cost to place an order = Rs 30

Cost per unit = 15, Holding cost per unit per year = 10% of cost per unit

Lead time = 10 days, Safety stock = 100 units

Calculate a : Reorder point

b: Mean Time between placing of orders.

2. C - How can CAD /CAE /CAM - reduce the “ time to market” in new product development. Explain with respect to the product development process.

**Question 3** – Answer any two of these questions. (2\*5 = 10 Marks)

3.A How is inventory planning for independent demand items different from Dependent demand items ?

3.B Comment on the statement “ The Job shop is the most costly production system”

3.C How does a company proceed on its journey to become a “World Class Company”

**Question 4** – Answer any two of these questions. (2\*5 = 10 Marks)

4. A - A company wants to introduce a new product in the market. What are the possible ways it can use to forecast the sales of the product?

4. B – Describe the different tools used in JIT.

4. C – When is a Centre of Gravity method used? Explain the method.

**Question 5** . Write short notes on any two questions . (2\*5 = 10 Marks)

5.A Value Analysis . 5.B Capacity Planning , 5.C Types of layouts