

VPM's
DR VN BRIMS, Thane
Programme: PGDM (2016-18)
PGDM Trimester III Examination April 2017

Subject	Operations Management		
Roll No.		Marks	60 Marks
Total No. of Questions	7	Duration	3 Hours
Total No. of printed pages	2	Date	28.04.2017

Note: Q1 is compulsory and solve any FOUR from the remaining SIX questions.

Q1).....20 Marks (Compulsory)

1. Product M is made up of two units of N and three of P. N is made up of two units of R and four Units of S. R is made up of one unit of S and three units of T. P is made up of two units of T and four units of U.

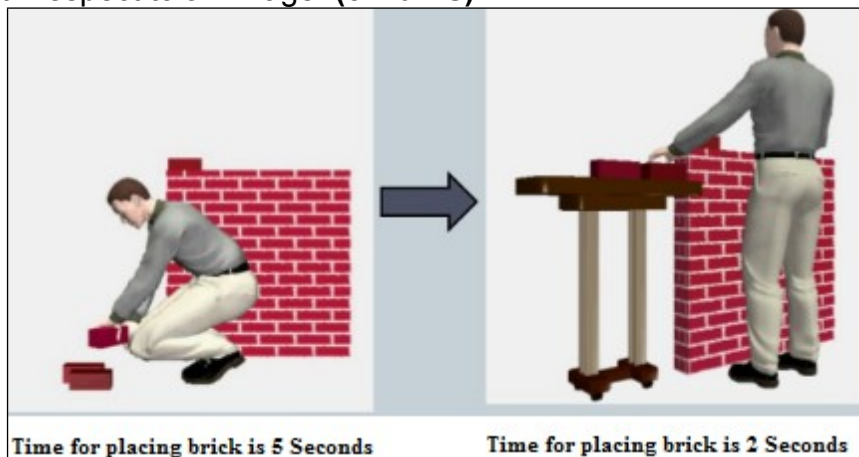
- a. Draw Bill of Material (Product Structure tree).....**(5 Marks)**
- b. If 100 M are required, How many Units of each components are needed?**(5 Marks)**

2. “A visual workplace is a work environment that is self-ordering, self-explaining, self-regulating and self-improving – where what is supposed to happen does happen, on time, every time, because of visual solutions” Do you agree with this statement? If yes elaborate point wise. **(10 Marks)**

Attempt Any FOUR from the Remaining SIX Questions

Q2)

- a) Which lean tool is used in below image for improving the process? Elaborate that Process with respect to an image. **(5 Marks)**



- b) What are the functions of Inventory Management? **(5 Marks)**

Q3)

- a) If the annual demand for a product is 3,50,000 units, then the annual carrying cost rate is 25% of the cost of the unit, the product costs \$14.75 per unit to purchase, and each time the product is ordered the related ordering costs is \$53.00**(5 Marks)**
 - i. Calculate EOQ
 - ii. What is the Total Stocking Cost(TSC) at EOQ
 - iii. How much would the TSC increase if the order quantity must be 2,500 units because of a standard shipping-container size?
- b) Explain the integrated approach of materials management. **(5 Marks)**

Q4).....

- a) Write Short note on**(5 Marks)**
 - i. Quality Circles
 - ii. 14 Steps for Quality improvement

b) Case Study:

(5 marks)

A XYZ company manufacturing the furniture product, is facing the problem of sudden fall of sales during last six months. They were the local market leader. The product quality and customer satisfaction was foremost objective. They also had enough number of employees but that number was also falling down day by day. The marketing manager found out that there are lot of complaints coming from customers and he is not able to handle them. This also created disputes amongst the departments. The owner of the company wants to identify the problem and its solution.

Discuss the case for following points:

A) Analyze this problem and draw a fish bone diagram.

Q5).....

- a) What are the ISO 9000 standards? Explain its significance. **(5 Marks)**
- b) What are the objectives & principles of purchasing?

Q6).....

- a) Discuss the Deming's philosophy for TQM. **(5 Marks)**
- b) What are the Layouts, advantages & applications of FMS? **(5 Marks)**

Q7).....

- a) What are the MRP inputs & Outputs? Explain each one. **(5 Marks)**
- b) An item is consumed @ 10,000 pieces per year. (M) **(5 Marks)**
The other details are - Unit Price: \$ 1 (s)
ICC = 30% per year
Ordering Cost (Co) = \$ 60 per order.
 - i. Considering various possibilities of order quantities at a time (e.g. 10000, 5000, 2000, 1000, 500),
Work out - Ordering charges, Inv. Carrying Charges and Total Cost.
 - ii. On a graph paper, plot graphs of ordering charges, Inv. Carrying cost and Total cost against each other.
 - iii. Find out EOQ from the graph.
 - iv. Find EOQ from formulae and tally with No. 3 above.