

**VPM's**  
**DR VN BRIMS, Thane**  
**Programme: MMS (2019-21)**  
**First Semester Examination January 2020**

|                                   |                              |                 |                   |
|-----------------------------------|------------------------------|-----------------|-------------------|
| <b>Subject</b>                    | <b>Operations Management</b> |                 |                   |
| <b>Roll No.</b>                   |                              | <b>Marks</b>    | <b>60 Marks</b>   |
| <b>Total No. of Questions</b>     | <b>7</b>                     | <b>Duration</b> | <b>3 Hours</b>    |
| <b>Total No. of printed pages</b> | <b>2</b>                     | <b>Date</b>     | <b>06.01.2020</b> |

|             | <b>Instructions: -</b>  | <b>Marks</b> |
|-------------|---|--------------|
|             | <ul style="list-style-type: none"> <li>• <b>Q. No 1</b> is compulsory.</li> <li>• Attempt <b>Any Four</b> from the Remaining Six Questions.</li> <li>• Figures to the right indicate marks in full.</li> </ul>  |              |
| <b>Q. 1</b> | <p>Case/Case-let Study: study the case-let below and answer the questions given at the end of the case-let.</p> <p>A Production Planning and Control Manager recently discussed an example from his early career, prior to his full understanding of inventory as a symptom of the way the business was being run. The company he worked for had experienced a slowdown in sales. The General Manager of the company, concerned about profitability asked the Production Planning and Control Manager to cut 15% of the inventory in order to bring inventory expense in line with the lowest level of sales.</p> <p>Without understanding, the Production Planning and Control Manager did what was asked of him – except that without a good understanding of the relationships between managerial approaches and inventory, he merely cut the inventory level without making any changes in the business processes.</p> <p>About 3 months after the initial request from the General Manager, the Planning and Control Manager was again approached by the General Manager. The conversation went something like this:</p> <p><b>General Manager:</b> "What are you doing to my production facility?"</p> <p><b>Planning and Control Manager:</b> "What do you mean?"</p> <p><b>General Manager::</b> "We have all kinds of new problems-lots of premium freight shipments from suppliers in response to all kinds of part shortages, split lots being frequently run on the equipment which are drastically increasing our setup costs, a major falloff in labor efficiency, and other similar problems-what <i>are</i> you doing?"</p> <p><b>Planning and Control Manager:</b> "I'm getting rid of 15% of the inventory."</p> <p><b>General Manager:</b> "<u>Well, then, put it BACK!</u>"</p> <p>Questions:</p> <ol style="list-style-type: none"> <li>1. In the above case, explain what did the Production Planning and Control Manager do wrongly? (7 marks)</li> <li>2. How would you tackle the inventory reduction issue? (8 marks)</li> <li>3. What is the impact of inventory on product cost? (5 marks)</li> </ol> | <b>20</b>    |

|             |  |                 |
|-------------|--|-----------------|
| <b>Q. 2</b> | Answer <b>Any two</b> from the following.  | <b>5x2 = 10</b> |
|             | <b>a.</b> What is competitive advantage and how it is created in business?   |                 |
|             | <b>b.</b> Discuss how products are classified.   |                 |
|             | <b>c.</b> Comment on the role of tangible products in service operations   |                 |
| <b>Q. 3</b> | Answer <b>Any two</b> from the following.  | <b>5x2= 10</b>  |
|             | <b>a.</b> Explain the influence of location decision on product cost   |                 |
|             | <b>b.</b> M/s ABC Industrial Corporation Ltd. a manufacturer of certain industrial component is interested in locating a new facility in a target market and would like to know the most appropriate place to locate the proposed facility. There are four supply points A (125, 550), B (350, 400), C (450,125) & D (700, 300) in the locality that will provide key inputs to the facility. A two-dimensional grid map of the target market in which M/s ABC would like to locate the new facility with distance coordinates of the four supply points is to be made. The annual supply from these four points to the proposed facility is 200, 450, 175 & 150 tonnes respectively. The coordinates within the parentheses shown along the supply points indicate the distance from the origin of the target map to each of the supply points. Identify the most appropriate point in the grid map to locate the facility by center-of-gravity method. |                 |
|             | <b>c.</b> How does the plant layout influence the production process?  |                 |
| <b>Q. 4</b> | Answer <b>Any two</b> from the following.  | <b>5x2 = 10</b> |
|             | <b>a.</b> Comment on the utility of Kanban in control of shop floor operations.  |                 |
|             | <b>b.</b> Why inventory turnover ratio is considered as a measure of performance   |                 |
|             | <b>c.</b> The production dept of a company requires 3600 kg of raw material for manufacturing a particular item per year. It has been estimated that cost of placing an order is Rs36.00, the cost of carrying inventory is 25% of the investment in inventory, the price is Rs10.00 per kg. Determine the EOQ.  |                 |
| <b>Q. 5</b> | Answer <b>Any two</b> from the following.  | <b>5x2 = 10</b> |
|             | <b>a.</b> Explain the concept of 'bull-whip effect' in Supply Chain.   |                 |
|             | <b>b.</b> Distinguish between 'chase' and 'level' strategies of aggregate planning.  |                 |
|             | <b>c.</b> What are the advantages and disadvantages of outsourcing?  |                 |
| <b>Q. 6</b> | Answer <b>Any two</b> from the following.  | <b>5x2 = 10</b> |
|             | <b>a.</b> Bring out the difference between MRP I and MRP II  |                 |
|             | <b>b.</b> Enumerate the objectives of work-study   |                 |
|             | <b>c.</b> Explain the techniques of job sequencing known to you.   |                 |
| <b>Q. 7</b> | Answer <b>Any two</b> from the following   | <b>5x2 = 10</b> |
|             | <b>a.</b> Distinguish between census (100% enumeration) and SQC approaches to Quality Control.   |                 |
|             | <b>b.</b> Discuss any one point of your choice from Deming's 14-point philosophy   |                 |
|             | <b>c.</b> Compare value analysis and value engineering   |                 |