

Semester: June 24 – Oct 24		
Maximum Marks: 50 Examination: ESE Examination Date: 13-11-24 Duration: 2 Hrs.		
Programme code: 01 Programme: MBA	Class: FY	Semester : I
College: K. J. Somaiya Institute of Management	Name of the department/Section/Center: Operations	
Course Code: 317P01C108	Name of the Course: Operations Management	
Instructions: <ol style="list-style-type: none"> 1. Question 1 is compulsory. 2. Answer any four questions from Question 2 to Question 7. 3. Make suitable assumptions wherever required. 4. The number written in bold and italics at the end of each question indicates marks. 		

QuestionNo.		Max. Marks
Q1.	<p>Case Study: Streamlining Operations at Flexi-Furn</p> <p>Background:</p> <p>Flexi-Furn is a mid-sized furniture manufacturing company that produces custom-made office furniture. Over the last five years, Flexi-Furn has seen rapid growth, resulting in increased demand for its products. While the company had maintained a strong reputation for quality, it has started facing issues with delivery delays, inefficiencies in its production process, and rising operational costs. These issues are threatening its competitive advantage, and the management is concerned about the long-term sustainability of the business.</p> <p>Problem Statement:</p> <p>Flexi-Furn's operations manager, Maya, is tasked with identifying the bottlenecks in the production process and implementing changes to improve efficiency. As part of her analysis, Maya identifies several key areas of concern:</p> <p>Inventory Management: The company has been overstocking raw materials, leading to high holding costs, while still experiencing stockouts of key materials for production.</p> <p>Production Workflow: There are frequent delays and idle times in production due to inconsistent workflow and unbalanced labor allocation across departments.</p> <p>Lead Times: Flexi-Furn has missed multiple deadlines due to long lead times in its production cycle. Customers are increasingly frustrated with the delays.</p> <p>Quality Control: Defects in products have risen by 15% over the last two years, leading to an increase in rework and waste.</p> <p>Maya's main objectives are to:</p> <ol style="list-style-type: none"> 1) Reduce lead times and increase on-time delivery rates. 2) Streamline the production process to reduce idle times and inefficiencies. 3) Improve inventory management to lower costs and ensure smoother production. 	10

	<p>4) Implement better quality control measures to decrease defects and waste.</p> <p>Q1. How would implementing a Just-in-Time (JIT) inventory system help Flexi-Furn reduce operational costs and improve efficiency? What potential risks could arise from this approach?</p> <p>Q2. What are the financial and operational impacts of improving quality control at earlier stages in the production process?</p>																			
Q2.	<p>A. For a particular item, the annual demand is 52000 units. The economic order quantity is 2166 units.</p> <ol style="list-style-type: none"> 1. What is average time between any 2 orders placed. 2. If the lead time to purchase is 2 weeks, what is the R.O.P (ReOrder Point)? <p>B. Differentiate between continuous (Q) and periodic (P) inventory control systems. (5)</p>	10																		
Q3.	<p>The sale of 2 wheelers in the last 9 months at a Retail outlet is given in Table.</p> <table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th>Jan</th> <th>Feb</th> <th>March</th> <th>April</th> <th>May</th> <th>June</th> <th>July</th> <th>Aug</th> <th>Sep</th> </tr> </thead> <tbody> <tr> <td>145</td> <td>110</td> <td>100</td> <td>140</td> <td>130</td> <td>140</td> <td>160</td> <td>165</td> <td>180</td> </tr> </tbody> </table> <p>A. Use 2 months and 3 month moving average method to determine the Forecast.</p> <p>B. Make a comparison of the 2 and 3 months Moving average forecast using the Mean Square error criteria. Which system is more accurate?</p>	Jan	Feb	March	April	May	June	July	Aug	Sep	145	110	100	140	130	140	160	165	180	10
Jan	Feb	March	April	May	June	July	Aug	Sep												
145	110	100	140	130	140	160	165	180												
Q4	<p>A. What is the importance of lean manufacturing?</p> <p>B. How does an ERP (Enterprise Resource Planning) system impact the performance of a company? (5)</p>	10																		
Q5.	<p>A. You are a product manager for a company manufacturing Chocolate Bars & confectionary. The company is thinking of launching a new Chocolate Bar for middle and lower income groups of customers. How would you go about doing the product development process for the same? What difficulties you may encounter therein? (5)</p> <p>B. Which schemes of the Government of India promote the importance of India as a manufacturing destination?(5)</p>	10																		
Q6.	<p>A. Differentiate between Product and Process Layout, specifying their Pros and Cons. (5)</p> <p>B. Explain capacity augmentation strategies with some examples (5)</p>	10																		
Q7.	<p>Write Short notes on any 2 of the following:</p> <ol style="list-style-type: none"> 1. Relationship between Volume Variety and Flow 2. Chase vs. level strategy of APP (aggregate production planning) 3. Principles of Quality Management 	10																		