

Q-1	<p>A) The store of an oil engine repair shop has 10 items whose details are shown in below table. Apply ABC analysis to the store and categories them in A, B and C. and make matrix of ABC vs VED. Explain how it is helpful in inventory control decision-making.</p> <table border="1" data-bbox="295 840 1340 1467"> <thead> <tr> <th>Component Code</th> <th>Description</th> <th>Price/Unit</th> <th>Annual Demand Unit/Year</th> <th>Category as per VED</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Packing thread</td> <td>100</td> <td>100</td> <td>D (Desirable)</td> </tr> <tr> <td>2</td> <td>Tower Bolt</td> <td>200</td> <td>300</td> <td>E (Essential)</td> </tr> <tr> <td>3</td> <td>Hexagonal nut</td> <td>50</td> <td>700</td> <td>E (Essential)</td> </tr> <tr> <td>4</td> <td>Bush</td> <td>400</td> <td>400</td> <td>E (Essential)</td> </tr> <tr> <td>5</td> <td>Coupling</td> <td>500</td> <td>1000</td> <td>V (Vital)</td> </tr> <tr> <td>6</td> <td>Bearing (Big)</td> <td>3000</td> <td>30</td> <td>V (Vital)</td> </tr> <tr> <td>7</td> <td>Bearing (Small)</td> <td>1000</td> <td>100</td> <td>E (Essential)</td> </tr> <tr> <td>8</td> <td>Fuel Pump</td> <td>7000</td> <td>500</td> <td>V (Vital)</td> </tr> <tr> <td>9</td> <td>Fixture</td> <td>5000</td> <td>105</td> <td>D (Desirable)</td> </tr> <tr> <td>10</td> <td>Drill bit</td> <td>60</td> <td>1000</td> <td>D (Desirable)</td> </tr> </tbody> </table>	Component Code	Description	Price/Unit	Annual Demand Unit/Year	Category as per VED	1	Packing thread	100	100	D (Desirable)	2	Tower Bolt	200	300	E (Essential)	3	Hexagonal nut	50	700	E (Essential)	4	Bush	400	400	E (Essential)	5	Coupling	500	1000	V (Vital)	6	Bearing (Big)	3000	30	V (Vital)	7	Bearing (Small)	1000	100	E (Essential)	8	Fuel Pump	7000	500	V (Vital)	9	Fixture	5000	105	D (Desirable)	10	Drill bit	60	1000	D (Desirable)	14
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Q-2	<p>A) What are the different types of manufacturing systems, and how do their operational characteristics vary?"</p> <p style="text-align: center;"><u>OR</u></p> <p>B) How does the layout of a plant influence operational efficiency, and what are the various types of plant layouts? Could you provide an example of a company that utilizes one of these layouts to enhance its production process?</p>	14																																																							

Q-3	<p>A) In what ways does the operations strategy support the corporate strategy, and how are key operations management decisions linked to the broader business goals?</p> <p style="text-align: center;"><u>OR</u></p> <p>B) Can you provide an in-depth analysis of supply chain management, focusing on its key stakeholders and the activities involved, and explore how these elements collaborate to drive operational efficiency and sustain competitive advantage?</p>	14																		
Q-4	<p>A) What are the various demand patterns in supply chain management, and how do these patterns affect inventory management and forecasting decisions? Kindly justify your explanation with pertinent examples.</p> <p style="text-align: center;"><u>OR</u></p> <p>B) In what ways does demand forecasting contribute to informed decision-making in supply chain management? Provide a detailed discussion of its objectives and the various types.</p>	14																		
Q-5	<p>A) Five architectural rendering jobs are waiting to be assigned at Avanti Sethi Architects. Their work (processing) times and due dates are given in the following table. Jobs were assigned a letter in the order they arrived. Today is day 1, and work begins today.</p> <table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="padding: 5px;">Job</th> <th style="padding: 5px;">Processing Time (Days)</th> <th style="padding: 5px;">Due Date (Days)</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">A</td> <td style="padding: 5px;">6</td> <td style="padding: 5px;">8</td> </tr> <tr> <td style="padding: 5px;">B</td> <td style="padding: 5px;">2</td> <td style="padding: 5px;">6</td> </tr> <tr> <td style="padding: 5px;">C</td> <td style="padding: 5px;">8</td> <td style="padding: 5px;">18</td> </tr> <tr> <td style="padding: 5px;">D</td> <td style="padding: 5px;">3</td> <td style="padding: 5px;">15</td> </tr> <tr> <td style="padding: 5px;">E</td> <td style="padding: 5px;">9</td> <td style="padding: 5px;">23</td> </tr> </tbody> </table> <p>Evaluate different job sequencing rules to decide which one leads to the most effective schedule and suggest Avanti sethi Architects.</p>	Job	Processing Time (Days)	Due Date (Days)	A	6	8	B	2	6	C	8	18	D	3	15	E	9	23	14
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