Department of MBA

MBA Mid Question Bank (R22 Regulation)

Academic Year: 2024-25 **Semester: III**

Subject Name: PRODUCTION & OPERATIONS MANAGEMENT (22MB301PC)

Faculty Name: Dr. B. VASANTHA LAKSHMI, D. KANAKA DURGA

PART-A

<table>
<tr><th>Q.No</th><th>Questions</th><th>Marks</th><th>BL</th><th>CO</th><th>Unit No</th></tr>
<tr><td>1</td><td>Define POM.</td><td>2M</td><td>L1</td><td>CO1</td><td>UNIT-I</td></tr>
<tr><td>2</td><td>Elaborate Concept of Production.</td><td>2M</td><td>L2</td><td>CO1</td><td>UNIT-I</td></tr>
<tr><td>3</td><td>Discuss about Strategic Operations Management.</td><td>2M</td><td>L2</td><td>CO1</td><td>UNIT-I</td></tr>
<tr><td>4</td><td>Explain World Class Manufacturing.</td><td>2M</td><td>L2</td><td>CO1</td><td>UNIT-I</td></tr>
<tr><td>5</td><td>Explain any two Functional Sub Systems of Organization.</td><td>2M</td><td>L2</td><td>CO1</td><td>UNIT-I</td></tr>
<tr><td>6</td><td>Role of Government in Sustainable Operations.</td><td>2M</td><td>L3</td><td>CO1</td><td>UNIT-I</td></tr>
<tr><td>7</td><td>Write about New Product Development.</td><td>2M</td><td>L3</td><td>CO2</td><td>UNIT-II</td></tr>
<tr><td>8</td><td>Write in detail about Capacity Planning.</td><td>2M</td><td>L3</td><td>CO2</td><td>UNIT-II</td></tr>
<tr><td>9</td><td>Discuss about Value Analysis.</td><td>2M</td><td>L2</td><td>CO2</td><td>UNIT-II</td></tr>
<tr><td>10</td><td>Elaborate Lean Production System.</td><td>2M</td><td>L2</td><td>CO2</td><td>UNIT-II</td></tr>
<tr><td>11</td><td>State the Responsibilities of Process Planning Engineer.</td><td>2M</td><td>L1</td><td>CO2</td><td>UNIT-II</td></tr>
<tr><td>12</td><td>Outline the Importance of Pilot Plant Development.</td><td>2M</td><td>L1</td><td>CO2</td><td>UNIT-II</td></tr>
<tr><td>13</td><td>Explain Plant Location.</td><td>2M</td><td>L2</td><td>CO3</td><td>UNIT-III</td></tr>
<tr><td>14</td><td>Write about Plant Layout.</td><td>2M</td><td>L3</td><td>CO3</td><td>UNIT-III</td></tr>
<tr><td>15</td><td>Explain about plant layout.</td><td>2M</td><td>L2</td><td>CO3</td><td>UNIT-III</td></tr>
<tr><td colspan="6">UPTO MID-I</td></tr>
<tr><td>16</td><td>Identify the advantages of group technology layout.</td><td>2M</td><td>L2</td><td>CO3</td><td>UNIT-III</td></tr>
<tr><td>17</td><td>Write about Single Technology Layout.</td><td>2M</td><td>L3</td><td>CO3</td><td>UNIT-III</td></tr>
<tr><td>18</td><td>From the following data calculate Break Even Point expressed in terms of units.
<table>
<tr><td>Fixed Expenses</td><td>Rupees</td><td>Variable Expenses</td><td>Rupees</td></tr>
<tr><td>Depreciation</td><td>1,00,000</td><td>Materials</td><td>Rs 3/- Per unit</td></tr>
<tr><td>Salaries</td><td>1,00,000</td><td>Labour</td><td>Rs 2/- Per unit</td></tr>
<tr><td>Selling Price</td><td></td><td></td><td>Rs 10/- Per unit</td></tr>
</table></td><td>2M</td><td>L4</td><td>CO3</td><td>UNIT-III</td></tr>
<tr><td>19</td><td>Write about scheduling.</td><td>2M</td><td>L3</td><td>CO4</td><td>UNIT-IV</td></tr>
<tr><td>20</td><td>Explain in brief about schedule generation.</td><td>2M</td><td>L5</td><td>CO4</td><td>UNIT-IV</td></tr>
<tr><td>21</td><td>Write about heuristic procedures in short.</td><td>2M</td><td>L3</td><td>CO4</td><td>UNIT-IV</td></tr>
<tr><td>22</td><td>Write quality control concepts in short.</td><td>2M</td><td>L3</td><td>CO4</td><td>UNIT-IV</td></tr>
<tr><td>23</td><td>State Types of Schedules.</td><td>2M</td><td>L1</td><td>CO4</td><td>UNIT-IV</td></tr>
<tr><td>24</td><td>Explain the dispatch of priority dispatching rules.</td><td>2M</td><td>L2</td><td>CO4</td><td>UNIT-IV</td></tr>
</table>

25	A company purchases raw material at cost of 16 per unit the annual demand is 25000 per unitthe carrying cost per unit is 6.40 and cost of placing order is Rs. 32.	**2M**	**L4**	**CO5**	**UNIT-V**
26	What is VED analysis and ABC analysis?	**2M**	**L1**	**CO5**	**UNIT-V**
27	CalculateEOQ and number oforders to be placedin a year quarterlyconsumption of material. 4000 units cost of placing one order is 100.Cost per unit is Rs.80 cost of storage and carrying costis 8% of inventory.	**2M**	**L4**	**CO5**	**UNIT-V**
28	Explain Green Purchasing.	**2M**	**L2**	**CO5**	**UNIT-V**
29	Discuss about E- Procurement.	**2M**	**L2**	**CO5**	**UNIT-V**
30	Write in short about material management.	**2M**	**L3**	**CO5**	**UNIT-V**

PART-B

Q.No	Questions	Marks	BL	CO	Unit No
1	Explain the nature and scope of Production & Operations Management.	**4M**	**L2**	**CO1**	**UNIT-I**
2	Write about Functional Subsystems Of Organization.	**4M**	**L3**	**CO1**	**UNIT-I**
3	Elaborate Concept of Production, Differentiate Production V's Productivity.	**4M**	**L2**	**CO1**	**UNIT-I**
4	Explain about Types of Production Systems? With appropriate examples.	**4M**	**L2**	**CO1**	**UNIT-I**
5	Discuss about Quality Control and write its objectives in brief.	**4M**	**L2**	**CO1**	**UNIT-I**
6	Write about Operations Management along with its Objectives.	**4M**	**L3**	**CO1**	**UNIT-I**
7	What is Industry 4.0? Write the Definition and its Development.	**8M**	**L1**	**CO1**	**UNIT-I**
8	Explain Sustainable Operations Management and its importance.	**8M**	**L2**	**CO1**	**UNIT-I**
9	Define Flow or Mass Production? Explain its Merits and De merits.	**8M**	**L1**	**CO1**	**UNIT-I**
10	Write about the concept of New Product Development and its Stages.	**4M**	**L3**	**CO2**	**UNIT-II**
11	Elaborate Product Design along with steps and Phases.	**4M**	**L2**	**CO2**	**UNIT-II**
12	Discuss about Product Design along with its Benefits and Key Elements.	**4M**	**L2**	**CO2**	**UNIT-II**
13	Briefly discuss about Process Research Steps.	**4M**	**L5**	**CO2**	**UNIT-II**
14	Discuss about Pilot Plant Development along with purpose, steps and benefits.	**4M**	**L2**	**CO2**	**UNIT-II**
15	Write Benefits of Effective Process Planning and Design.	**4M**	**L3**	**CO2**	**UNIT-II**
16	Differentiate between Value Analysis and Value Engineering along with steps.	**8M**	**L4**	**CO2**	**UNIT-II**
17	Differentiate between Product Design and Process Design.	**8M**	**L4**	**CO2**	**UNIT-II**
18	Explain the concept of Process Planning and Design and Selection of Process.	**8M**	**L5**	**CO2**	**UNIT-II**
19	Elaborate Plant Location. Explain Factors Influencing Plant Location.	**4M**	**L2**	**CO3**	**UNIT-III**
20	Write in Brief about Break Even Analysis with an example problem.	**4M**	**L3**	**CO3**	**UNIT-III**

21	Explain Single Facility Location Problem.	**4M**	**L2**	**CO3**	**UNIT-III**
22	Explain advantages and limitations of group technology layout.	**4M**	**L2**	**CO3**	**UNIT-III**
23	Write about Plant Layout along with its Classification of Layout.	**4M**	**L3**	**CO3**	**UNIT-III**
	UPTO MID-I				
24	Explain about layout design procedures.	**4M**	**L2**	**CO3**	**UNIT-III**
25	How do Facility location decisions differ for Service facilities and manufacturing plants?	**4M**	**L1**	**CO3**	**UNIT-III**
26	Discuss Break Even Chart Graphically.	**4M**	**L3**	**CO3**	**UNIT-III**
27	Define Plant Layout state objectives of a good plant layout.	**4M**	**L2**	**CO3**	**UNIT-III**
28	Elaborate Plant Layout? Explain Factors Influencing Plant Layout.	**4M**	**L2**	**CO3**	**UNIT-III**
29	Solve the following through two job m machine schedule method. JOB-1 Sequence A B C D E Time(hr) 3 4 2 6 2 JOB-2 Sequence B C A D E Time(hr) 5 4 3 2 6	**4M**	**L5**	**CO4**	**UNIT-IV**
30	Solve the following through two job m machine scheduling. JOB-1 Sequence A B C D E Time(hr) 2 3 4 6 2 JOB-2 Sequence C A D E B Time(hr) 4 5 3 2 6	**4M**	**L5**	**CO4**	**UNIT-IV**
31	Find the sequence that minimizes the total elapsed time (in hrs) required to complete the following tasks on two machines. TASK A B C D E F G MACHINE-1 2 5 4 9 6 8 7 MACHINE-2 6 8 7 4 3 9 3	**4M**	**L4**	**CO4**	**UNIT-IV**
32	Determine the sequence that will minimize the total elapsed time and also find the idle time. JOB 1 2 3 4 5 6 MACHINE-A 3 12 5 2 9 11 MACHINE-B 8 6 4 6 3 1 MACHINE-C 13 14 9 12 8 13	**4M**	**L4**	**CO4**	**UNIT-IV**
33	Find the total elapsed time and idle time for both machines. JOB 1 2 3 4 5 Machine-1 5 1 9 3 10 Machine-2 2 6 7 8 14	**4M**	**L4**	**CO4**	**UNIT-IV**
34	Find the sequence that minimizes the total elapsed time (in hrs.) required to complete thefollowing tasks on three machines. JOBS 1 2 3 4 5 MACHINE-A 3 8 7 5 2 MACHINE-B 3 4 2 1 5 MACHINE-C 5 8 10 7 6	**4M**	**L4**	**CO4**	**UNIT-IV**
35	Explain Palmer's Heuristic Method with an Example.	**8M**	**L2**	**CO4**	**UNIT-IV**
36	What is the Concept of Control Charts for Variables? How	**8M**	**L1**	**CO4**	**UNIT-IV**

<table>
<tr><td></td><td>will you construct them? Illustrate.</td><td></td><td></td><td></td><td></td></tr>
<tr><td>37</td><td>From the following data Construct a fraction defective Chart.
<table>
<tr><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td></tr>
<tr><td>32</td><td>50</td><td>50</td><td>32</td><td>80</td><td>50</td><td>50</td></tr>
<tr><td>3</td><td>3</td><td>2</td><td>1</td><td>4</td><td>2</td><td>0</td></tr>
</table></td><td>8M</td><td>L5</td><td>CO4</td><td>UNIT-IV</td></tr>
<tr><td>38</td><td>The following purchases and issues where made in a company.
<table>
<tr><td>DATE</td><td>PARTICULARS</td><td>UNITS</td><td>RATE</td></tr>
<tr><td>1-8-2006</td><td>Purchases</td><td>300</td><td>15</td></tr>
<tr><td>6-8-2006</td><td>Issues</td><td>200</td><td>-</td></tr>
<tr><td>10-8-2006</td><td>Purchases</td><td>400</td><td>20</td></tr>
<tr><td>15-8-2006</td><td>Issues</td><td>450</td><td>-</td></tr>
<tr><td>22-8-2006</td><td>Purchases</td><td>400</td><td>25</td></tr>
<tr><td>25-8-2006</td><td>Issues</td><td>200</td><td>-</td></tr>
<tr><td>28-8-2006</td><td>Purchases</td><td>300</td><td>23</td></tr>
</table>
From the above calculate FIFO, LIFO, simple average and weighted average.</td><td>4M</td><td>L4</td><td>CO5</td><td>UNIT-V</td></tr>
<tr><td>39</td><td>Ram industry needs 5,400 units year of a bought out component which will be used in its main product. The ordering cost is Rs. 250/- Per order and the Carrying cost Per unit per year is Rs. 30/-. Find out Economic Order Quantity, number of orders per year, time between successive orders.</td><td>4M</td><td>L4</td><td>CO5</td><td>UNIT-V</td></tr>
<tr><td>40</td><td>Write in brief about integrated material management along with its components.</td><td>4M</td><td>L3</td><td>CO5</td><td>UNIT-V</td></tr>
<tr><td>41</td><td>Write in detail about e-Procurement and green purchasing and store management.</td><td>4M</td><td>L3</td><td>CO5</td><td>UNIT-V</td></tr>
<tr><td>42</td><td>Write in short about VED, FSN, SDE, and XYZ Analysis.</td><td>4M</td><td>L3</td><td>CO5</td><td>UNIT-V</td></tr>
<tr><td>43</td><td>The following data are available on consumption pattern of certain materials in an organization.
<table>
<tr><td>Group</td><td>No. of Items</td><td>Monthly co (units)</td></tr>
<tr><td>1</td><td>40</td><td>3000</td></tr>
<tr><td>2</td><td>20</td><td>270</td></tr>
<tr><td>3</td><td>100</td><td>1700</td></tr>
<tr><td>4</td><td>200</td><td>1500</td></tr>
<tr><td>5</td><td>60</td><td>340</td></tr>
<tr><td>6</td><td>300</td><td>2500</td></tr>
<tr><td>7</td><td>250</td><td>2000</td></tr>
<tr><td>8</td><td>30</td><td>170</td></tr>
</table>
Find out A,B,C Items when :
A Items account for 85% of consumption value.
B Items account for 10% of consumption value.
C) Items account for 5% of consumption value.</td><td>4M</td><td>L4</td><td>CO5</td><td>UNIT-V</td></tr>
<tr><td>44</td><td>What is meant by Materials Requirement Planning (MRP)? How is it related to Just in Time (JIT).</td><td>8M</td><td>L1</td><td>CO5</td><td>UNIT-V</td></tr>
<tr><td>45</td><td>List the different Tasks under Stores Managements.</td><td>8M</td><td>L4</td><td>CO5</td><td>UNIT-V</td></tr>
<tr><td>46</td><td>What is meant by the term ‘Service level’? Generally speaking, how is service level related to the amount of Safety stock held?</td><td>8M</td><td>L1</td><td>CO5</td><td>UNIT-V</td></tr>
</table>