INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)

Dundigal, Hyderabad - 500 043

MASTER OF BUSINESS ADMINISTRATION
TUTORIAL QUESTION BANK

Course Name	:	**PRODUCTION AND OPERATIONS MANAGEMENT**
Course Code	:	CMBB07
Class	:	II SEMESTER
Branch	:	MBA
Academic Year	:	2018 – 2019
Course Coordinator	:	Ms. E. Sunitha, Assistant professor
Course Faculty	:	Ms. E. Sunitha, Assistant professor

I. COURSE OBJECTIVES:

The course should enable the students to:	
I	Understand the strategic role of operations management in creating and enhancing a firm's competitive advantages.
II	Analyze the key concepts, issues and different types of techniques of Operations Management in Both manufacturing and service organizations.
III	Know about the interdependence of the operations function with the other key functional areas of A firm.
IV	Apply analytical skills and problem-solving tools to the analysis of the operations problems.

II. COURSE OUTCOMES (COs):

CO Code	At the end of the course, the student will have the ability to:
CMBB07:01	Understand the role of operation system in total management system and its interface with other systems of functional areas
CMBB07:02	Illustrate the different types of processes planning, process design, production planning and control in organizations.
CMBB07:03	Describe the characteristics of process technologies and inter relationship between product life cycle and process life cycle.
CMBB07:04	Explain aggregate planning, operating schedule and product sequencing.
CMBB07:05	Describe plant location, plant layout and various types of plant layouts
CMBB07:06	Discuss the objectives, different types of maintenance system and replacement policies.
CMBB07:07	Examine the standards, specifications of quality control, quality control tools and techniques.
CMBB07:08	Determine different types of controlling measures for the products in organizations.
CMBB07:09	Examine the uses and different methods of work measurement, computation of allowance and allowed time.
CMBB07:10	Describe the need, importance of material requirement planning and techniques for prioritization of materials.
CMBB07:11	Classify the sources of supply of materials, performance of suppliers, make or buy decisions under various circumstances vender rating.
CMBB07:12	Discuss the objectives and requirements of stores management and different types of

CO Code	At the end of the course, the student will have the ability to:
	inventory.
CMBB07:13	Illustrate the different systems of inventory control like ABC, VED, FNSD analysis,
CMBB07:14	Discuss the importance of Variance analysis in cost reduction, concepts and procedures.

TUTORIAL QUESTION BANK

S. No	QUESTION	Blooms Taxonomy Level	Course Outcomes (COs)
UNIT-I			
INTRODUCTION TO OPERATIONS MANAGEMENT			
PART-A (SHORT ANSWER QUESTIONS)			
1	**Define** operations management?	Understand	CMBB07:01
2	**Explain** the concept of production management?	Understand	CMBB07:01
3	**Define** batch production?	Understand	CMBB07:01
4	**Explain** the types of production methods?	Remember	CMBB07:01
5	**Define product design?**	Understand	CMBB07:02
6	**Define** Process design?	Understand	CMBB07:02
7	**What is** process focused system?	Understand	CMBB07:02
8	**What** is product focused system?	Understand	CMBB07:02
9	**Explain** the various types of processes?	Remember	CMBB07:02
10	**Define** process planning ?	Understand	CMBB07:02
11	**Write** a short note on production planning and control?	Understand	CMBB07:02
12	**Write** about the stages of production cycle?	Remember	CMBB07:02
13	**Present the stages of product life cycle?**	Remember	CMBB07:02
1	**Write the stages of process life cycle?**	Remember	CMBB07:02
15	**Define project production?**	Understand	CMBB07:02
16	**Define** assembly production?	Understand	CMBB07:02
17	**Explain** about the job shop?	Understand	CMBB07:02
18	**Write** a short note on process technologies?	Understand	CMBB07:02
19	**What** is maturity stage ?	Understand	CMBB07:02
20	**What do you mean by break even point.**	Understand	CMBB07:02

S. No	QUESTION	Blooms Taxonomy Level	Course Outcomes (COs)
	PART-B (LONG ANSWER QUESTIONS)		
1	Define production and operations management . Explain its significance in service organization?	Understand	CMBB07:01
2	Explain the scope, characteristics of production and operations management?	Remember	CMBB07:01
3	Distinguish between operations management and production management?	Understand	CMBB07:01
4	What is the role of operations management in total management system?	Understand	CMBB07:01
5	Discuss the interface between operation function and other functional areas?	Remember	CMBB07:01
6	What are the different types of production methods. Explain in detail?	Remember	CMBB07:02
7	What do you mean by project production system. Explain in detail along with the advantages and disadvantages	Understand	CMBB07:02
8	What do you mean by batch production system. Explain in detail along with the advantages and disadvantages	Understand	CMBB07:02
9	Describe job shop and assembly production systems along with advantages and disadvantages in detail.	Understand	CMBB07:02
10	Define process planning? Distinguish between process design and Product design	Understand	CMBB07:02
11	Explain the functions of production, planning and control ?	Understand	CMBB07:02
12	What do you mean by product life cycle and process life cycle? explain the relationship between them	Understand	CMBB07:03
13	Describe the interrelation between production life cycle and product life cycle.	Understand	CMBB07:03
14	Describe the interrelation between production life cycle and process life cycle	Understand	CMBB07:03
15	Describe the factors effecting production planning. Explain in detail.	Understand	CMBB07:03
	UNIT-II		
	SCHEDULING AND CONTROL OF PRODUCTION OPERATIONS		
	PART-A(SHORT ANSWER QUESTIONS)		
1	Define scheduling?	Remember	CMBB07:04
2	Define line balancing		CMBB07:04
3	Define aggregate planning		CMBB07:04
4	Describe sequencing		CMBB07:04
5	Write a short note on Master Production System		CMBB07:04
6	What do you mean by capacity planning		CMBB07:04
6	Describe rough cut capacity planning		CMBB07:04

S. No	QUESTION	Blooms Taxonomy Level	Course Outcomes (COs)
7	What do you mean by plant layout?	Understand	CMBB07:05
8	Define plant location	Understand	CMBB07:05
9	Explain manufacturing layout?	Understand	CMBB07:05
10	Explain the concept of total productive maintenance?	Understand	CMBB07:06
11	Define preventive maintenance?	Understand	CMBB07:06
12	What do you mean by maintenance management	Understand	CMBB07:06
13	What is line balancing and capacity planning?	Understand	CMBB07:06
14	Explain the concept of loading and dispatching?	Remember	CMBB07:06
15	What do you mean by demand forecasting	Understand	CMBB07:06
PART-B (LONG ANSWER QUESTIONS)			
1	Explain the stages involved in scheduling? State the factors affecting scheduling?	Remember	CMBB07:04
2	Explain cycle of schedule with diagram with the help of flowchart.	Understand	CMBB07:04
3	Describe the relation between aggregate planning and capacity planning with the help of flow chart.	Understand	CMBB07:04
4	Explain the role of master production schedule in production planning.	Understand	CMBB07:04
5	Explain about sequencing? What are rules of sequencing?	Remember	MB0013:04
6	What is line balancing ?write the line balancing procedure?	Understand	MB0013:04
7	Define capacity? write in detail about its determination and factors influencing capacity planning.	Understand	MB0013:04
8	Define rough cut capacity planning. Discuss its role in master production schedule	Understand	MB0013:04
9	Define maintenance systems and Explain various types of maintenance systems?	Understand	MB0013:04
10	Explain the factors involving in selecting the right location for the plant.	Understand	CMBB07:05
11	Explain about the plant layout ?Discuss the need for plant location what are the steps involved in selecting a location	Understand	CMBB07:05
12	Discuss the different types of layouts with the help of pictorial representation	Remember	CMBB07:05
13	Differentiate between product layout and process layout ?	Understand	CMBB07:05
14	Discuss about fixed layout? Discuss the merits and demerits.	Understand	CMBB07:05
15	Explain about the maintenance management ? explain its scope and objectives	Understand	CMBB07:06
16	Define maintenance systems and Explain various types of maintenance systems?	Remember	CMBB07:06
UNIT-III			
QUALITY CONTROL			
PART-A(SHORT ANSWER QUESTIONS)			
1	Define quality control ?	Remember	CMBB07:07

<table>
<tr><th>S. No</th><th>QUESTION</th><th>Blooms Taxonomy Level</th><th>Course Outcomes (COs)</th></tr>
<tr><td>2</td><td>Explain quality circles?</td><td>Remember</td><td>CMBB07:07</td></tr>
<tr><td>3</td><td>Explain acceptance sampling?</td><td>Understand</td><td>CMBB07:07</td></tr>
<tr><td>4</td><td>What is meant by total quality management</td><td>Remember</td><td>CMBB07:07</td></tr>
<tr><td>5</td><td>Define quality assurance?</td><td>Remember</td><td>CMBB07:07</td></tr>
<tr><td>6</td><td>Define briefly about the statistical quality control(SQC)?</td><td>Understand</td><td>CMBB07:07</td></tr>
<tr><td>7</td><td>What is meant by work measurement?</td><td>Analyze</td><td>CMBB07:08</td></tr>
<tr><td>8</td><td>Describe about control charts?</td><td>Understand</td><td>CMBB07:08</td></tr>
<tr><td>9</td><td>Explain the meaning of defective product</td><td>Remember</td><td>CMBB07:08</td></tr>
<tr><td>10</td><td>Describe the control charts for variables?</td><td>Understand</td><td>CMBB07:08</td></tr>
<tr><td colspan="4"></td></tr>
<tr><td>11</td><td>What do you mean by work study</td><td>Understand</td><td>CMBB07:09</td></tr>
<tr><td>12</td><td>What do you mean by work study</td><td>Understand</td><td>CMBB07:09</td></tr>
<tr><td>13</td><td>Write the steps involved in method study?</td><td>Remember</td><td>CMBB07:09</td></tr>
<tr><td>14</td><td>Write the steps involved in method study?</td><td>Remember</td><td>CMBB07:09</td></tr>
<tr><td>15</td><td>What do you mean by work study?</td><td>Remember</td><td>CMBB07:09</td></tr>
<tr><td>16</td><td>Define work sampling?</td><td>Remember</td><td>CMBB07:09</td></tr>
<tr><td>17</td><td>Explain about the standard time(S.T) ?</td><td>Understand</td><td>CMBB07:09</td></tr>
<tr><td>18</td><td>Explain the concept of OC curve?</td><td>Understand</td><td>CMBB07:09</td></tr>
<tr><td>19</td><td>What do you mean by method study?</td><td>Remember</td><td>CMBB07:09</td></tr>
<tr><td>20</td><td>Mention techniques used in method study?</td><td>Understand</td><td>CMBB07:09</td></tr>
<tr><td>21</td><td>What do you by work measurement.</td><td>Understand</td><td>CMBB07:09</td></tr>
<tr><td>22</td><td>Mention any the objectives of work study?</td><td>Analyze</td><td>CMBB07:09</td></tr>
<tr><td colspan="4"></td></tr>
<tr><td colspan="4">PART-B(LONG ANSWER QUESTIONS)</td></tr>
<tr><td>1</td><td>Explain the functions of quality control in detail?</td><td>Understand</td><td>CMBB07:07</td></tr>
<tr><td>2</td><td>Describe about the method study and its objectives? Write the steps involved?</td><td>Remember</td><td>CMBB07:07</td></tr>
<tr><td>3</td><td>Explain about the quality circles ?explain its characteristics and objectives of quality circles?</td><td>Remember</td><td>CMBB07:07</td></tr>
<tr><td>4</td><td>Define method study. Explain the techniques of method study?</td><td>Remember</td><td>CMBB07:08</td></tr>
<tr><td>5</td><td>The number of defectives found in lots 200 each are given below for 16 lots
<table>
<tr><th>Lot no</th><th>No of defectives</th><th>Lot no</th><th>No of defectives</th></tr>
<tr><td>1</td><td>6</td><td>9</td><td>6</td></tr>
<tr><td>2</td><td>12</td><td>10</td><td>10</td></tr>
<tr><td>3</td><td>8</td><td>11</td><td>20</td></tr>
<tr><td>4</td><td>12</td><td>12</td><td>12</td></tr>
<tr><td>5</td><td>16</td><td>13</td><td>16</td></tr>
<tr><td>6</td><td>20</td><td>14</td><td>10</td></tr>
<tr><td>7</td><td>24</td><td>15</td><td>6</td></tr>
<tr><td>8</td><td>10</td><td>16</td><td>12</td></tr>
</table>
Construct np control chart and comment.</td><td>Analyze</td><td>CMBB07:08</td></tr>
<tr><td>6</td><td>What do you understand by statistical quality control? Explain its purpose and advantages?</td><td>Understand</td><td>CMBB07:08</td></tr>
<tr><td>7</td><td>Write about the acceptance sampling? Explain different types</td><td>Understand</td><td></td></tr>
</table>

<table>
<tr><th>S. No</th><th>QUESTION</th><th>Blooms Taxonomy Level</th><th>Course Outcomes (COs)</th></tr>
<tr><td></td><td>of sampling plans used for acceptance sampling?</td><td></td><td>CMBB07:08</td></tr>
<tr><td>8</td><td>The following data gives readings for quality control job. Determine whether the process is under control
<table>
<tr><th>Sample no</th><th>Mean X</th><th>Range R</th></tr>
<tr><td>1</td><td>3.25</td><td>0.09</td></tr>
<tr><td>2</td><td>3.37</td><td>0.02</td></tr>
<tr><td>3</td><td>3.35</td><td>0.11</td></tr>
<tr><td>4</td><td>3.30</td><td>0.16</td></tr>
<tr><td>5</td><td>3.38</td><td>0.10</td></tr>
<tr><td>6</td><td>3..34</td><td>0.12</td></tr>
</table></td><td>Analyze</td><td>CMBB07:09</td></tr>
<tr><td>9</td><td>A company bottles soft drinks. The bottle comes in only one flavour and only one size (16 ounces) the first daily samples of till weights of 20 bottles are,
(i)compute control limits draw X and R charts
(ii)plot thee 10 points and discuss whether the production process is in control
<table>
<tr><th>Sample</th><th>X</th><th>R</th></tr>
<tr><td>1</td><td>16.05</td><td>0.20</td></tr>
<tr><td>2</td><td>16.04</td><td>0.25</td></tr>
<tr><td>3</td><td>15.98</td><td>0.62</td></tr>
<tr><td>4</td><td>15.91</td><td>0.71</td></tr>
<tr><td>5</td><td>16.02</td><td>0.58</td></tr>
<tr><td>6</td><td>16.09</td><td>0.37</td></tr>
<tr><td>7</td><td>15.95</td><td>0.35</td></tr>
<tr><td>8</td><td>16.06</td><td>0.21</td></tr>
<tr><td>9</td><td>15.94</td><td>0.29</td></tr>
<tr><td>10</td><td>15.97</td><td>0.46</td></tr>
</table>
Given
A2=0.180
D3=0.414
D4=1.586</td><td>Remember</td><td>CMBB07:09</td></tr>
<tr><td colspan="4"></td></tr>
<tr><td>10</td><td>What is total quality management? Explain the different kinds of control charts?</td><td>Remember</td><td>CMBB07:08</td></tr>
<tr><td>11</td><td>Discuss the various control charts for attributes? Explain them briefly?</td><td>Remember</td><td>CMBB07:08</td></tr>
<tr><td>12</td><td>What is work study? Explain various techniques of work study?</td><td>Understand</td><td>CMBB07:09</td></tr>
<tr><td>13</td><td>Explain about the control charts with graphical representation and explain its objectives</td><td>Understand</td><td>CMBB07:09</td></tr>
<tr><td>14</td><td>The following table gives the number of defects in a casting used to making crank case of diesel engine. Construct appropriate control chart with control limits and comment on the process
<table>
<tr><td>S.No</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td></tr>
<tr><td>No. of defects</td><td>15</td><td>11</td><td>25</td><td>10</td><td>12</td><td>20</td><td>15</td><td>10</td><td>17</td><td>13</td></tr>
</table></td><td>Analyze</td><td>CMBB07:09</td></tr>
</table>

<table>
<tr><th>S. No</th><th>QUESTION</th><th>Blooms Taxonomy Level</th><th>Course Outcomes (COs)</th></tr>
<tr><td>14</td><td>Construct the appropriate control charts for the following data . twelve samples of five cookies each during two weeks were considered
<table>
<tr><td>sample</td><td colspan="5">Chips per cookie</td></tr>
<tr><td>1</td><td>2</td><td>3</td><td>3</td><td>4</td><td>3</td></tr>
<tr><td>2</td><td>5</td><td>3</td><td>6</td><td>2</td><td>1</td></tr>
<tr><td>3</td><td>4</td><td>3</td><td>3</td><td>2</td><td>2</td></tr>
<tr><td>4</td><td>6</td><td>1</td><td>5</td><td>3</td><td>3</td></tr>
<tr><td>5</td><td>2</td><td>4</td><td>1</td><td>4</td><td>4</td></tr>
<tr><td>6</td><td>5</td><td>1</td><td>3</td><td>3</td><td>3</td></tr>
<tr><td>7</td><td>2</td><td>3</td><td>3</td><td>2</td><td>1</td></tr>
<tr><td>8</td><td>1</td><td>1</td><td>3</td><td>1</td><td>2</td></tr>
<tr><td>9</td><td>6</td><td>3</td><td>3</td><td>3</td><td>3</td></tr>
<tr><td>10</td><td>6</td><td>7</td><td>5</td><td>5</td><td>6</td></tr>
<tr><td>11</td><td>6</td><td>1</td><td>1</td><td>3</td><td>2</td></tr>
<tr><td>12</td><td>5</td><td>5</td><td>3</td><td>1</td><td>3</td></tr>
</table></td><td>Analyze</td><td>CMBB07:08</td></tr>
<tr><td colspan="4">UNIT-IV</td></tr>
<tr><td colspan="4">MATERIALS MANAGEMENT</td></tr>
<tr><td colspan="4">PART-A (SHORT ANSWER QUESTIONS)</td></tr>
<tr><td>1</td><td>What do you mean by materials management?</td><td>Remember</td><td>CMBB07:10</td></tr>
<tr><td>2</td><td>Define MRP .Explain the importance of MRP?</td><td>Understand</td><td>CMBB07:10</td></tr>
<tr><td>3</td><td>State any four techniques for prioritization of materials?</td><td>Analyze</td><td>CMBB07:10</td></tr>
<tr><td>4</td><td>What are the objectives of materials management?</td><td>Remember</td><td>CMBB07:10</td></tr>
<tr><td>7</td><td>Explain about the make or buy decision and its benefits?</td><td>Understand</td><td>CMBB07:11</td></tr>
<tr><td>8</td><td>Explain about the materials budgeting?</td><td>Remember</td><td>CMBB07:11</td></tr>
<tr><td>9</td><td>Write about economic order quantity?</td><td>Understand</td><td>CMBB07:11</td></tr>
<tr><td>10</td><td>Define vendor rating?</td><td>Remember</td><td>CMBB07:11</td></tr>
<tr><td>11</td><td>Explain types of vendors?</td><td>Remember</td><td>CMBB07:11</td></tr>
<tr><td>12</td><td>Write about vendor ranking?</td><td>Understand</td><td>CMBB07:11</td></tr>
<tr><td>13</td><td>What is the need of material budgeting?</td><td>Understand</td><td>CMBB07:12</td></tr>
<tr><td colspan="4">PART-B (LONG ANSWER QUESTIONS)</td></tr>
<tr><td>1</td><td>Explain the importance and objectives of material management?</td><td>Understand</td><td>CMBB07:10</td></tr>
<tr><td>2</td><td>What is vendor rating? What are its determinants?</td><td>Remember</td><td>CMBB07:10</td></tr>
<tr><td>3</td><td>Explain the role of vendor in production and operations management (POM)?</td><td>Analyze</td><td>CMBB07:10</td></tr>
<tr><td>4</td><td>What do you mean by make or buy decision ?discuss the pros and cons of this decision?</td><td>Remember</td><td>CMBB07:10</td></tr>
<tr><td>5</td><td>What are the factors influencing the make or buy decision?</td><td>Understand</td><td>CMBB07:11</td></tr>
<tr><td>6</td><td>Define the term waste. Explain its different types of waste?</td><td>Understand</td><td>CMBB07:11</td></tr>
<tr><td>7</td><td>What are the objectives of MRP? Explain its advantages and disadvantages of MRP?</td><td>Analyze</td><td>CMBB07:11</td></tr>
<tr><td>8</td><td>Explain different types of techniques for prioritization of material?</td><td>Remember</td><td>CMBB07:12</td></tr>
<tr><td>9</td><td>Explain the different ways of reducing wastes?</td><td>Remember</td><td>CMBB07:12</td></tr>
<tr><td>10</td><td>How do you evaluate the performance of suppliers ?what are the goals of vendor rating?</td><td>Understand</td><td>CMBB07:12</td></tr>
</table>

<table>
<tr><th>S. No</th><th>QUESTION</th><th>Blooms Taxonomy Level</th><th>Course Outcomes (COs)</th></tr>
<tr><td>11</td><td>Explain the concept of waste management? Discuss advantages and disadvantages.</td><td></td><td></td></tr>
<tr><td colspan="4">UNIT-V</td></tr>
<tr><td colspan="4">STORES MANAGEMENT</td></tr>
<tr><td colspan="4">PART-A(SHORT ANSWER QUESTIONS)</td></tr>
<tr><td>1</td><td>Define stores management?</td><td>Understand</td><td>CMBB07:13</td></tr>
<tr><td>2</td><td>Define safety stock?</td><td>Analyze</td><td>CMBB07:13</td></tr>
<tr><td>3</td><td>What is meant by inventory and various types of inventory</td><td>Understand</td><td>CMBB07:13</td></tr>
<tr><td>4</td><td>Write about the inventory control?</td><td>Remember</td><td>CMBB07:13</td></tr>
<tr><td>5</td><td>Explain the concept of EOQ model?</td><td>Analyze</td><td>CMBB07:14</td></tr>
<tr><td>6</td><td>What are inventory costs and storage cost?</td><td>Remember</td><td>CMBB07:14</td></tr>
<tr><td>7</td><td>Mention various systems available for inventory control?</td><td>Understand</td><td>CMBB07:14</td></tr>
<tr><td>8</td><td>What is meant by cost reduction?</td><td>Understand</td><td>CMBB07:14</td></tr>
<tr><td>5</td><td>Explain about ABC analysis.</td><td>Remember</td><td>CMBB07:13</td></tr>
<tr><td>6</td><td>Write about VED classification?</td><td>Understand</td><td>CMBB07:13</td></tr>
<tr><td>13</td><td>Explain about the FSN analysis?</td><td>Understand</td><td>CMBB07:12</td></tr>
<tr><td>10</td><td>Define stores layout?</td><td>Analyze</td><td>CMBB07:15</td></tr>
<tr><td>11</td><td>Define bin card?</td><td>Understand</td><td>CMBB07:15</td></tr>
<tr><td>12</td><td>Explain about economic order quantity?</td><td>Understand</td><td>CMBB07:15</td></tr>
<tr><td>13</td><td>What do you mean by holding costs and operational costs</td><td>Analyze</td><td>CMBB07:15</td></tr>
<tr><td>14</td><td>Write the importance of value analysis?</td><td>Understand</td><td>CMBB07:15</td></tr>
<tr><td>15</td><td>Explain about the business process reengineering?</td><td>Analyze</td><td>CMBB07:15</td></tr>
<tr><td colspan="4">PART-B(LONG ANSWER QUESTIONS)</td></tr>
<tr><td>1</td><td>Define stores and stores management.What are the various functions performed by stores department</td><td>Remember</td><td>CMBB07:13</td></tr>
<tr><td>2</td><td>What is stores management? What are the requirements for effective management of stores?</td><td>Remember</td><td>CMBB07:13</td></tr>
<tr><td>2</td><td>Discuss in detail ABC analysis and FNS analysis.</td><td></td><td></td></tr>
<tr><td>3</td><td>Explain the concept of safety stock. what are the various methods used in the computation of safety stock?</td><td>Understand</td><td>CMBB07:13</td></tr>
<tr><td>4</td><td>Define inventory . explain the importance of maintaining inventory?</td><td>Apply</td><td>CMBB07:14</td></tr>
<tr><td>5</td><td>Explain the various systems of inventory control?</td><td>Remember</td><td>CMBB07:14</td></tr>
<tr><td>6</td><td>Define inventory? Explain various types of inventory?</td><td>Understand</td><td>CMBB07:14</td></tr>
<tr><td>7</td><td>What is value analysis ? how it is used for cost reduction?</td><td>Understand</td><td>CMBB07:14</td></tr>
<tr><td>8</td><td>What are the various costs involved in inventory management ?</td><td>Remember</td><td>CMBB07:14</td></tr>
<tr><td>9</td><td>Classify the following 14 items in ABC categories
<table>
<tr><td>ITEM NO</td><td>MONTHLY CONSUMPTION</td></tr>
<tr><td>D-10</td><td>451</td></tr>
<tr><td>D-11</td><td>1052</td></tr>
<tr><td>D-12</td><td>205</td></tr>
<tr><td>D-13</td><td>893</td></tr>
<tr><td>D-14</td><td>850</td></tr>
<tr><td>D-15</td><td>727</td></tr>
</table></td><td>Analyze</td><td>CMBB07:14</td></tr>
</table>

<table>
<tr><th>S. No</th><th>QUESTION</th><th>Blooms Taxonomy Level</th><th>Course Outcomes (COs)</th></tr>
<tr><td></td><td>
<table>
<tr><td>D-16</td><td>412</td></tr>
<tr><td>D-17</td><td>214</td></tr>
<tr><td>D-18</td><td>188</td></tr>
<tr><td>D-19</td><td>172</td></tr>
<tr><td>D-20</td><td>170</td></tr>
<tr><td>D-21</td><td>5056</td></tr>
<tr><td>D-22</td><td>159</td></tr>
<tr><td>D-23</td><td>3424</td></tr>
</table>
</td><td></td><td></td></tr>
<tr><td>10</td><td>A factory uses annually 24,000 units of raw material which costs rs.125 per unit placing each order costs rs.25 and carrying costs is 6% per year of average inventory.
i)find out the economic order quantity.
ii)how many orders are to be placed in a year
iii)what is the total inventory cost for year including the cost of material</td><td>Analyze</td><td>CMBB07:14</td></tr>
<tr><td>11</td><td>An auto industry purchases spark plugs at the rate of rs.25 per piece . the annual consumption of spark plugs is 18000 numbers . if the ordering cost is rs.250 per order and carrying cost is rs.25 % per annum. What would be the EOQ? If the supplier of spark plugs offer discount of 5% for order quantity of 3000 numbers per order do you accept the discount offer?</td><td>Analyze</td><td>CMBB07:14</td></tr>
<tr><td>12</td><td>A company uses 12 different items in the manufacturing process. Their annual requirement and unit costs are given as fallows
<table>
<tr><th>Items</th><th>quantity</th><th>Unit cost</th></tr>
<tr><td>1</td><td>9000</td><td>10</td></tr>
<tr><td>2</td><td>300</td><td>750</td></tr>
<tr><td>3</td><td>5400</td><td>210</td></tr>
<tr><td>4</td><td>3800</td><td>90</td></tr>
<tr><td>5</td><td>12400</td><td>10</td></tr>
<tr><td>6</td><td>90</td><td>1200</td></tr>
<tr><td>7</td><td>600</td><td>400</td></tr>
<tr><td>8</td><td>22000</td><td>2</td></tr>
<tr><td>9</td><td>750</td><td>175</td></tr>
<tr><td>10</td><td>1000</td><td>250</td></tr>
<tr><td>11</td><td>7600</td><td>75</td></tr>
<tr><td>12</td><td>10000</td><td>4</td></tr>
</table>
</td><td>Analyze</td><td>CMBB07:14</td></tr>
</table>

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