Name:

Enrolment No:

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, December 2018

Course: BBA (AM / FAS / OGM) **Semester: III**
Programme: Operations and Materials Management **CC: LSCM 2001**
Time: 03 hrs.
Instructions: Scientific calculator allowed **Max. Marks: 100**

SECTION A (Attempt all) **2 x 10 = 20 Marks**

S. No.		Marks	CO
Q 1	A combination of product and process layout is called as _____.	2	
Q 2	The business function responsible for planning, coordinating, and controlling the resources needed to produce a company's products and services is called as ____.	2	CO1
Q 3	_____ technology requires low customer contact and capital intensive technology to render the service. It also offers rigid and standardized service with reliable delivery schedule.	2	CO1
Q4	A _____ type of products is something you cannot touch them like tickets, banks, dry cleaners, amusement parks, trademarks, brands, etc.	2	CO1
Q5	_____ decisions are broad in scope but long term in nature like capacity planning whereas _____ decisions are narrow in scope but short term in nature like production planning.	2	CO1
Q6	SAP stands for _____in data processing whereas ERP stands for _____.	2	CO2
Q7	_____, is when you recover a product from a customer in exchange for value and recycle the product for profit and gain by putting it through quality check and refurbishment. This collection is done by the retailers on Companies behalf and incentives are paid for collection and shipping.	2	CO2
Q8	The TBL (Triple Bottom Line) dimensions commonly called the three Ps: _____.	2	CO2
Q9	MRP stands for _____ whereas MRP II stands for _____.	2	CO1
Q10	Introduction, _____, Maturity, and _____ are the four stages of product life cycle (PLC).	2	CO1

SECTION B (Attempt any four) **4 x 5 = 20 Marks**

Q 1	Write at least 2 points and an example for explaining the following differences. A) Centralized Store Vs Decentralized Store B) Centralized Dispatch Vs Decentralized Dispatch	5	CO5

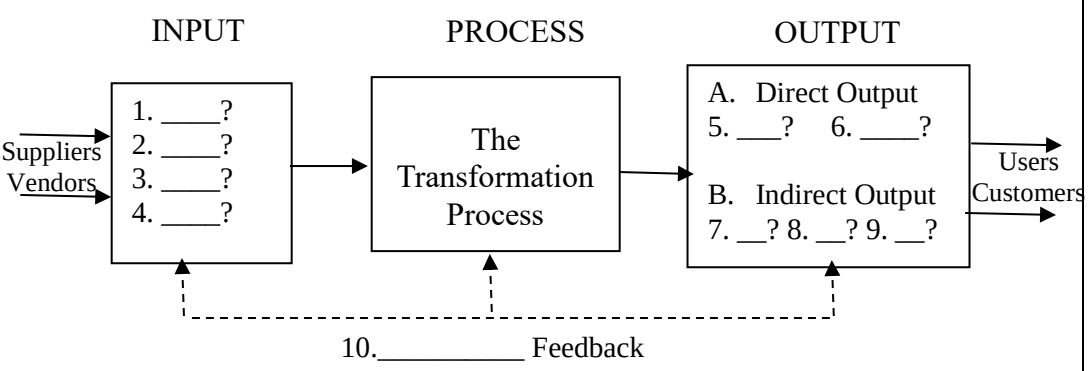
<table>
<tr><td>Q 2</td><td>Use flowchart to explain the steps involved in method study in production and operations management.</td><td>5</td><td>CO4</td></tr>
<tr><td>Q 3</td><td>Name any 5 basic types of layout and give an example.</td><td>5</td><td>CO4</td></tr>
<tr><td>Q 4</td><td>What is Just-In-Time production? Name all seven types of wastes that an industry should eliminate.</td><td>5</td><td>CO5</td></tr>
<tr><td>Q 5</td><td>Define MTO. How ATO is different from MTO?</td><td>5</td><td>CO3</td></tr>
<tr><td colspan="4">SECTION-C (Attempt any three) 3 x 10 = 30 Marks</td></tr>
<tr><td>Q 1</td><td>Complete the following diagram by filling up point 1 to 10.
 
</td><td>10</td><td>CO1</td></tr>
<tr><td>Q 2</td><td>What do you understand by the term “MH equipment”? Explain any four MH technological equipment with an example.</td><td>10</td><td>CO5</td></tr>
<tr><td>Q 3</td><td>What is aggregate planning? Explain all four aggregate planning strategies with an example.</td><td>10</td><td>CO3</td></tr>
<tr><td>Q 4</td><td>Define the term Ergonomics by giving an example of “UPES”. What is the procedure for purchasing materials in your university “UPES”?</td><td>10</td><td>CO5</td></tr>
<tr><td>Q 5</td><td>A manufacturer of garments is actively considering 5 alternative locations for setting up its factory. The locations vary in terms of their advantages to the firm. Hence, the firm requires a method of identifying the most appropriate location. Based on a survey, the firm had arrived at 6 factors considered for the final state selection. The ratings of each factor on a scale of 1 to 100. Using below information to obtain a ranking of the alternative solutions.
Table-1: Factor ratings
<table>
<tr><th>S.No.</th><th>Factors</th><th>Rating</th></tr>
<tr><td>1</td><td>Availability of infrastructure</td><td>90</td></tr>
<tr><td>2</td><td>Size of the Market</td><td>60</td></tr>
<tr><td>3</td><td>Industrial relations climate</td><td>50</td></tr>
<tr><td>4</td><td>Tax benefits and concessions</td><td>30</td></tr>
<tr><td>5</td><td>Availability of cheap labor</td><td>30</td></tr>
<tr><td>6</td><td>Nearness to port</td><td>65</td></tr>
</table></td><td>10</td><td>CO3</td></tr>
</table>

Table 2: Rating of each location against each factor

Factors	Location 1	Location 2	Location 3	Location 4	Location 5
1	20	40	60	35	55
2	30	30	40	60	80
3	80	30	50	60	50
4	80	20	10	20	20
5	70	70	45	50	50
6	20	40	90	50	60

SECTION-D (Compulsory) **2 x 15 = 30 Marks**

Q 1

A) Write the formula of "Productivity" and Explain with an example.

B) A factory uses annually 24,000 units of a raw material, which costs Rs. 1.25 per unit. Placing each order costs Rs. 25 and carrying cost is 6% per year of the average inventory. Find the economic order quantity.

C) Consider a company that stocks 20 items. Table shows the number of units and the consumption value of each item. Perform ABC analysis to categorize the items in A, B, C categories and draw graphical depiction of ABC analysis.

Item No.	Annual Consumption (units)	Value Per Unit (Rs.)	**Item No.**	Annual Consumption (units)	Value Per Unit (Rs.)
1	100	400	**11**	20	30
2	500	60	**12**	90	5
3	200	70	**13**	40	10
4	25	200	**14**	35	10
5	25	100	**15**	20	17.5
6	65	20	**16**	50	6
7	50	25	**17**	100	3
8	50	20	**18**	25	10
9	30	30	**19**	20	10
10	50	14	**20**	25	6

2+3+10 = 15 | **CO1, CO2, CO3, CO5**

Q 2

A) What is the difference between quality assurance and quality control? Support with an example.

B) Use diagram to explain PDCA cycle.

C) Discuss the seven basic QC tools for process improvement with an example.

4+4+7 = 15 | **CO2, CO3**