


<b>Name:</b>	 <b>UPES</b> UNIVERSITY WITH A PURPOSE
<b>Enrolment No:</b>	

**UNIVERSITY OF PETROLEUM AND ENERGY STUDIES**  
**End Semester Examination, December 2019**

**Course: Operations and Materials Management**

**Semester: III**

**Program: BBA (FAS) + BBA (AM)**

**Time: 03 Hours**

**Course code: LSCM 2001**

**Max. Marks: 100**

**Instructions: Use of calculator is allowed**

	<b>Marks</b>	<b>CO</b>
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**SECTION A (Fill in the blanks)**

<b>Q 1</b>	<p>a) The part of the system that adds value to the inputs is _____.</p> <p>b) _____ include facilities, labor, capital, equipment, raw materials, supplies and knowledge.</p> <p>c) _____ estimate the future demand taking into account the likely future actions of the firm.</p> <p>d) _____ combines statistical tools with economic theories to estimate economic variables.</p> <p>e) The maximum load that can be handled by a plant in a given period in terms of input/output. _____.</p> <p>f) A project is a series of _____ directed to accomplishment of a desired objective.</p> <p>g) _____ can move material to lateral or vertical locations over a limited radius, generally in heavy engineering workshops, construction projects, ports, etc.</p> <p>h) The supply chain with such a fast movement of inventory across allowing for zero or very little inventory is termed as _____.</p> <p>i) The two important functions of production management are production planning and _____.</p> <p>j) Statistical Process Control uses _____ from output measures to estimate the mean and the variation.</p>	<b>2*10 = 20</b>	<b>CO1, CO2, CO3, CO4, CO5</b>
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**SECTION B (Write short notes on any four)**

<b>Q 2</b>	Importance of Operations	<b>5</b>	<b>CO1</b>
<b>Q 3</b>	Demand Forecasting Process	<b>5</b>	<b>CO2</b>
<b>Q 4</b>	Design Capacity, Effective Capacity and Actual Capacity	<b>5</b>	<b>CO3</b>
<b>Q 5</b>	Classification of Material Handling Equipment	<b>5</b>	<b>CO4</b>
<b>Q 6</b>	Total Quality Management	<b>5</b>	<b>CO5</b>

**SECTION-C (Answer any two questions)**

<b>Q 7</b>	The selling price of a particular product of a company is Rs. 100/unit and variable cost/unit is Rs. 40 and equal amount of fixed cost/unit. The demand generated in the market at the given price is 1000 units/day and its price elasticity of demand is 2. The company is thinking on offering 10% discount. What is your suggestion to the company?	<b>15</b>	<b>CO2</b>
<b>Q 8</b>	Yantra India Ltd. is a supplier of speedometers to Speed Auto Ltd. – manufacturers of 60 cc two-wheelers. It supplies 20,000 speedometers to Speed auto annually. At Speed Auto, the OC per order is Rs. 5 and the carrying cost is 2.5% of the average	<b>15</b>	<b>CO4</b>

	inventory value. The price of a single unit is Rs. 200. The company presently has a policy of placing 10 orders every year. Advise the management of Speed Auto as to whether it should continue with its present policy or switch over to the EOQ model.		
Q 9	Name any five renowned quality gurus and mention their contribution in quality management discipline. Discuss the contribution of any two of them in detail.	15	CO5

**SECTION-D (Read the following write-up and answer the questions followed)**

Q 10	<p>Small-scale industrial unit has following three locations A, B &amp; C available choices for setting plant. The financial and non-financial data collected for three different locations by analysts is summarized in the following table:</p> <table border="1" data-bbox="214 506 1276 1018"> <thead> <tr> <th rowspan="2">Item</th> <th colspan="3">Site</th> </tr> <tr> <th>A</th> <th>B</th> <th>C</th> </tr> </thead> <tbody> <tr> <td>(i) Total investment (Rs '000)</td> <td>400</td> <td>250</td> <td>300</td> </tr> <tr> <td>(ii) Total sales (Rs '000)</td> <td>440</td> <td>360</td> <td>370</td> </tr> <tr> <td>(iii) Expenses on raw-materials (Rs '000)</td> <td>100</td> <td>90</td> <td>120</td> </tr> <tr> <td>(iv) Expenses on selling &amp; distribution (Rs '000)</td> <td>50</td> <td>60</td> <td>80</td> </tr> <tr> <td>(v) Expenses on utilities (Rs '000)</td> <td>50</td> <td>40</td> <td>25</td> </tr> <tr> <td>(vi) Salary and wages (Rs '000)</td> <td>25</td> <td>30</td> <td>25</td> </tr> <tr> <td>(vii) Community facilities</td> <td>Excellent</td> <td>Good</td> <td>Bad</td> </tr> <tr> <td>(viii) Industrial relations</td> <td>Good</td> <td>V. Good</td> <td>Good</td> </tr> <tr> <td>(ix) Cost of living</td> <td>Extremely Low</td> <td>Normal</td> <td>Low</td> </tr> <tr> <td>(x) Housing facilities</td> <td>V. Good</td> <td>Good</td> <td>Fair</td> </tr> </tbody> </table> <p><b>Question:</b> Select the best location on the following factors keeping in mind the objectives of production and operations management.</p> <p>(a) financial factors.  (b) non-financial factors.  (c) over-all factors</p>	Item	Site			A	B	C	(i) Total investment (Rs '000)	400	250	300	(ii) Total sales (Rs '000)	440	360	370	(iii) Expenses on raw-materials (Rs '000)	100	90	120	(iv) Expenses on selling & distribution (Rs '000)	50	60	80	(v) Expenses on utilities (Rs '000)	50	40	25	(vi) Salary and wages (Rs '000)	25	30	25	(vii) Community facilities	Excellent	Good	Bad	(viii) Industrial relations	Good	V. Good	Good	(ix) Cost of living	Extremely Low	Normal	Low	(x) Housing facilities	V. Good	Good	Fair	10*3 = 30	CO1, CO3
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