Name: **Enrolment No:**	

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, May 2022

Course: Operations Management **Semester: 2**
Program: MBA Oil and Gas Mgt/Power Mgt/Aviation Mgt **Time : 03 hrs.**
Course Code: LSCM 7001 **Max. Marks: 100**

Instructions:

S. No.		Marks	CO
	SECTION A **10Qx2M=20Marks**		
Q 1	JIT	**2**	**CO1**
Q 2	Lean Management	**2**	**CO1**
Q 3	ERP	**2**	**CO1**
Q 4	MAD	**2**	**CO1**
Q 5	Manufacturing resources planning	**2**	**CO1**
Q 6	Safety Stock	**2**	**CO1**
Q 7		**2**	**CO1**
Q 8		**2**	**CO1**
Q 9		**2**	**CO1**
Q 10		**2**	**CO1**
	SECTION B **4Qx5M= 20 Marks**		
Q 11	Define Operations Strategy and its need in present scenario.	**5**	**CO2**
Q 12	What is TQM and its relevance in evolving as market leader.	**5**	**CO2**
Q 13	Discuss about any three types of Inventory?	**5**	**CO2**
Q 14	Discuss the need for Lean management and the philosophy behind the same.	**5**	**CO2**
	SECTION-C **3Qx10M=30 Marks**		
Q 15	Analyse and explain MAD and MAPE in forecasting.	**10**	**CO3**
Q 16	Explain in detail about various quality management tools.	**10**	**CO3**
Q 17	Discuss about various factors affecting facility location?	**10**	**CO3**
	SECTION-D **2Qx15M= 30 Marks**		

<table>
<tr><td>Q 18</td><td>Explain various plant location models.</td><td>15</td><td>CO4</td></tr>
<tr><td>Q 19</td><td>The new Health-care facility is targeted to serve seven census tracts in Delhi. The table given below shows the coordinates for the centre of each census tract, along with the projected populations, measured in thousands. Customers will travel from the seven census tract centres to the new facility when they need health-care. Two locations being considered for the new facility are at (5.5, 4.5) and (7, 2), which are the centres of census tracts C and F. Details of seven census tract centres, co-ordinate distances along with the population for each centre are given below. If we use the population as the loads and use rectilinear distance, which location is better in terms of its total load-distance score?
<table>
<tr><th>Sl. No.</th><th>Census tract</th><th>(x, y)</th><th>Population (l)</th></tr>
<tr><td>1</td><td>A</td><td>(2.5, 4.5)</td><td>2</td></tr>
<tr><td>2</td><td>B</td><td>(2.5, 2.5)</td><td>5</td></tr>
<tr><td>3</td><td>C</td><td>(5.5, 4.5)</td><td>10</td></tr>
<tr><td>4</td><td>D</td><td>(5, 2)</td><td>7</td></tr>
<tr><td>5</td><td>E</td><td>(8, 5)</td><td>10</td></tr>
<tr><td>6</td><td>F</td><td>(7, 2)</td><td>20</td></tr>
<tr><td>7</td><td>G</td><td>(9, 2.5)</td><td>14</td></tr>
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</td><td>15</td><td>CO4</td></tr>
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