Enrollment No._____

NAVRACHANA UNIVERSITY
a UGC recognized University

School: School of Business & Law
Program/s: MBA
Year: 2nd **Semester:** 03rd
Examination: End Semester Examination
Examination year: December - 2021

Course Code: MG313
Date: 07/12/2021
Time: 08:30 am to 10:30 am

Course Name: **Quality Management**
Total Marks: 40
Total Pages: 1

Instructions:

- *Write each answer on a new page.*
- *Closed book examination. Only case study printout is allowed.*
- *Use of calculator is allowed.*

<table>
<tr><th>Q. No.</th><th>Details</th><th>Marks</th><th>COs*</th><th>BTL#</th></tr>
<tr><td>Q.1</td><td>A) What is Kaizen? List down the possible parameters for generating Kaizen.
B) Write a short note on 7 wastes from Lean Management with examples.</td><td>8</td><td>CO1, CO2</td><td>BT1, BT3</td></tr>
<tr><td>Q.2</td><td>One of the stages in the process of making denim cloth at the Southern Mills Company is to spin cotton yarn onto spindles for subsequent use in the weaving process. Occasionally the yarn breaks during the spinning process, and an operator ties it back together. Some number of breaks is considered normal; however, too many breaks may mean that the yarn is of poor quality. In order to monitor this process, the quality-control manager randomly selects a spinning machine each hour and checks the number of breaks during a 15-minute period. Following is a summary of the observations for the past 20 hours:

Use this formula: $UCL = \bar{c} + z\sqrt{\bar{c}}$
$LCL = \bar{c} - z\sqrt{\bar{c}}$

<table>
<tr><th>Sample</th><th>Number of Breaks</th><th>Sample</th><th>Number of Breaks</th></tr>
<tr><td>1</td><td>3</td><td>11</td><td>3</td></tr>
<tr><td>2</td><td>2</td><td>12</td><td>4</td></tr>
<tr><td>3</td><td>4</td><td>13</td><td>6</td></tr>
<tr><td>4</td><td>1</td><td>14</td><td>7</td></tr>
<tr><td>5</td><td>5</td><td>15</td><td>8</td></tr>
<tr><td>6</td><td>3</td><td>16</td><td>6</td></tr>
<tr><td>7</td><td>2</td><td>17</td><td>5</td></tr>
<tr><td>8</td><td>4</td><td>18</td><td>7</td></tr>
<tr><td>9</td><td>0</td><td>19</td><td>8</td></tr>
<tr><td>10</td><td>2</td><td>20</td><td>6</td></tr>
</table>

Construct a c-chart using 3 sigma limits for this process and indicate if the process was out of control at any time. (Note: Take Z = 3)</td><td>8</td><td>CO1, CO2</td><td>BT2, BT3, BT5</td></tr>
<tr><td>Q.3</td><td>A) Write a short note on 5S methodology.

B) List down the six gaps mentioned in Service Quality Gap model. Explained any 2 with possible solutions.</td><td>8</td><td>CO1, CO2</td><td>BT1, BT4</td></tr>
</table>

Q.4	Case Study Question: If you were in the position of Anthony Scire, how would you respond to Louann Hulsman's request to implement Six Sigma@ the edge at the Rivermede plant?	8	CO3, CO4	BT1, BT2
Q.5	Case Study Question: What resources would you need to implement Six Sigma@ the edge? What criteria would you use to evaluate the readiness of the Rivermede plant to proceed with the implementation of Six Sigma@ the edge?	8	CO3, CO4	BT1, BT3

**********End of Question Paper**********