Assignment: 00

The due date for submitting this assignment has passed. As per our records you have not submitted this assignment.

Assignment - 00

1) The thickness of aluminum sheet is specified to be of 6±2 mm. The Upper Specification Limit and Lower Specification Limit for the sheet are:
   - 4mm, 8mm
   - 8mm, 4mm
   - 6mm, 8mm
   - 4mm, 6mm

   **No, the answer is incorrect.**
   **Score: 0**
   **Accepted Answers:**
   - 8mm, 4mm

2) The dimension of reliability is concerned with:
   - How easy it is to repair the product?
   - How long does the product last?
   - Will the product do the intended job?
   - How often does the product fail?

   **No, the answer is incorrect.**
   **Score: 0**
   **Accepted Answers:**
   - How often does the product fail?

3) If variability of a product decreases, its quality ____________.

   - remains unchanged
   - increases
   - decreases
   - improves
   - remains the same

   **Score: 0**
Variables

Week 6 - Control Charts for Attributes

Week 7 - Process Capability Analysis and ISO 9000 basics

Week 8 - Basic of ISO 9000, CUSUM and EWMA charts

Slides and Reading

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Score: 0

Accepted Answers:

4) The Toyota Production System is based on two pillars namely ______________ and ______________.

- Kaizen, Six Sigma
- Lean, Six Sigma
- Just in Time, Jidoka
- Just in Time, Kaizen

No, the answer is incorrect.

Score: 0

Accepted Answers:

Just in Time, Jidoka

5) There are 10 black marbles and 10 white marbles out of which 5 marbles are being chosen. Find the probability that there are 2 white marbles in them.

- 0.087
- 0.731
- 0.164
- 0.039

No, the answer is incorrect.

Score: 0

Accepted Answers:

0.087

6) A type II error occurs when:

- the null hypothesis is incorrectly rejected when it is true.
- the null hypothesis is incorrectly accepted when it is false.
- the sample mean differs from the population mean.
- the test is biased.

No, the answer is incorrect.

Score: 0

Accepted Answers:

the null hypothesis is incorrectly accepted when it is false.

7) Factory A produces 100 pieces of wooden legs used in manufacturing tables in 1 hour. The factory in total works for 3 hours. The quality manager decided to check the quality of the output by measuring the length of the legs (in cms). He decides to collect three samples (one for each hour). The sample size for each sample is fixed at 5. The data collected is present in the following table:

<table>
<thead>
<tr>
<th>Sample</th>
<th>Leg 01</th>
<th>Leg 02</th>
<th>Leg 03</th>
<th>Leg 04</th>
<th>Leg 05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample 01</td>
<td>10.2</td>
<td>15.5</td>
<td>9.8</td>
<td>9.7</td>
<td>10.3</td>
</tr>
<tr>
<td>Sample 02</td>
<td>10.4</td>
<td>9.9</td>
<td>10.1</td>
<td>10.2</td>
<td>9.8</td>
</tr>
<tr>
<td>Sample 03</td>
<td>9.9</td>
<td>9.8</td>
<td>10.2</td>
<td>10.1</td>
<td>10.4</td>
</tr>
</tbody>
</table>

What is the mean and range of leg length in sample 1?

- Mean=10.3; Range=0.3

No, the answer is incorrect.
Mean=10.1; Range=0.8
Mean=10.2; Range=0.6
Mean=9.9; Range=0.5

No, the answer is incorrect.
Score: 0
Accepted Answers: Mean=10.1; Range=0.8

8) You conduct a hypothesis test and you observe values for the sample mean and sample standard deviation when \( n = 25 \) that do not lead to the rejection of \( H_0 \). You calculate a p-value=0.0667. What will happen to the p-value if you observe the same sample mean and standard deviation for a sample \( n>25 \)?

- Stay the same
- Increase
- Decrease
- May either increase or decrease

No, the answer is incorrect.
Score: 0
Accepted Answers: Decrease

9) For a Poisson distribution:

- The mean is greater than the variance
- The mean is less than variance
- The mean is equal to the variance
- Cannot be determined

No, the answer is incorrect.
Score: 0
Accepted Answers: The mean is equal to the variance

10) Apart from Poisson distribution, another distribution that can be applied to events data is:

- Normal Distribution
- Geometric Distribution
- Log-Normal Distribution
- Continuous Distribution

No, the answer is incorrect.
Score: 0
Accepted Answers: Geometric Distribution