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Courses » Total Quality Management - I

Announcements **Course** Ask a Question Progress Mentor FAQ

Unit 9 - Week 8 - Basic of ISO 9000, CUSUM and EWMA charts

Course outline

How to access the portal & Assignment - 00

Week-1
Introduction to Total Quality Management

Week
2-Introduction to Total Quality Management - II

Week 3-Tools for Quality Assurance

Week 4 - Acceptance Sampling and Brief Introduction to R

Week 5 - Control Charts for Variables

Week 6 - Control Charts for Attributes

Week 7 - Process Capability Analysis and ISO 9000 basics

Assignment - 08

The due date for submitting this assignment has passed.

As per our records you have not submitted this assignment. **Due on 2018-10-03, 23:59 IST.**

1) Which of the following is not ONE of the CLAUSES of ISO 9000? **1 point**

- Scope and Normative References
- Quality Management Systems
- Management Responsibility and Resource Management
- Guidelines for Performance Improvement

No, the answer is incorrect.

Score: 0

Accepted Answers:

Guidelines for Performance Improvement

2) The International Standards Organization, known as ISO, has developed the ISO 9000 series. It is a generic standard, broadly applicable to any type of organization, and it is often used to demonstrate a _____ ability to control its processes. **1 point**

- supplier's
- creditor's
- shareholder's
- consumer's

No, the answer is incorrect.

Score: 0

Accepted Answers:

supplier's

3) A major disadvantage of a Shewhart control chart is that it uses only the information about the process contained in the last sample observation and it ignores any information given by the entire sequence of points. **1 point**

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CUSUM chart

 CUSUM chart

 Design of CUSUM chart and Introduction to EWMA chart

 EWMA Control Chart Design

 Uses of EWMA chart

 Benchmarking and Implementation of TQM

 Quiz : Assignment - 08

 Assignment - 08 (Solution)

 WEEK 8 - FEEDBACK - Total Quality Management - I

Slides and Reading
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- sensitive, more
 insensitive, less
 sensitive, less
 insensitive, more

No, the answer is incorrect.

Score: 0

Accepted Answers:

insensitive, less

4) Read the statements below and mark the CORRECT option given underneath. **1 point**

Cumulative Sum (CUSUM) charts combine information from several samples, they are MORE EFFECTIVE than Shewhart charts for detecting small process shifts.

The CUSUM chart DIRECTLY INCORPORATES all the information in the sequence of sample values by plotting the cumulative sums of the deviations from a target value

They are particularly INEFFECTIVE with samples of size $n=1$. This makes the cumulative sum control chart NOT a good candidate for use in the chemical and process industries where rational subgroups are frequently of size 1, and in discrete parts manufacturing with automatic measurement of each part and on-line process monitoring directly at the work center.

Which of the statement(s) is / are correct?

- Only I
 I and II
 Only II
 II and III

No, the answer is incorrect.

Score: 0

Accepted Answers:

I and II

5) The Exponentially Weighted Moving Average (EWMA) can be viewed as a weighted **1 point**

average of all past and current observations, it is very insensitive to the normality assumption. It is therefore an ideal control chart to use with individual observations.

- TRUE
 FALSE
 CANNOT predict before observing or plotting data
 CANNOT predict before observing or plotting data
 Depends on the value of λ .

No, the answer is incorrect.

Score: 0

Accepted Answers:

TRUE

6) Which control chart makes use of the Poisson distribution? **1 point**

- x-bar chart
 s chart
 R chart
 c chart

No, the answer is incorrect.

Score: 0

Accepted Answers:*c chart*

7) If the value of the EWMA is on one side of the center line when a shift in the mean in the opposite direction occurs, it could take the EWMA several periods to react to the shift, because the small λ does not weight the new data very heavily. This is called _____ effect and it can _____ the effectiveness of EWMA in shift detection. **1 point**

- Inertia, Increase
- Inertia, Decrease
- Accidie, Decrease
- Accidie, Increase

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

8) Identify the INCORRECT option. **1 point**

- From an SPC viewpoint, the EWMA is roughly equivalent to the CUSUM in its ability to monitor a process and detect the presence of assignable causes that result in a process shift.
- The EWMA provides a forecast of where the process mean will be at the next time period
- CUSUM is sometimes called a geometric moving average (GMA)
- CUSUM and EWMA performs well against small shifts but does not react to large shifts as quickly as the Shewhart charts.

No, the answer is incorrect.**Score: 0****Accepted Answers:***CUSUM is sometimes called a geometric moving average (GMA)*

9) Which of the following statement(s) is / are TRUE? **1 point**

- I. Benchmarking is the process of comparing and measuring an organization's operations or its internal processes against those of a best-in-class performer from inside or outside its industry.
- II. Finding the secrets of success of any given function or process so that a company can learn from the information—and improve on it.
- III. Benchmarking is beneficial only for large businesses.

- Only II
- I and II
- I, II and III
- II and III

No, the answer is incorrect.**Score: 0****Accepted Answers:***I and II*

10) Which of the following responses is NOT a valid reason to Benchmark? **1 point**

- The rationale for benchmarking is that it makes no sense to stay locked in an isolated laboratory trying to invent a new process that will improve the product, or reduce cost, when that process already exists.
- Benchmarking is used to show which processes are candidates for continual (incremental) improvement and which require major (one-shot) changes.
- Benchmarking offers the fastest route to significant performance improvement.

Benchmarking helps in copying the manufacturing processes and quality practices of successful organizations.

No, the answer is incorrect.

Score: 0

Accepted Answers:

Benchmarking helps in copying the manufacturing processes and quality practices of successful organizations.

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