Lesson 4-2 Practice Quiz

®γσ, Eng Lian Hu

June 12, 2016

# Lesson 4-2 Practice Quiz

*5/5 points earned (100%)*

**Excellent!**

*Correct 1/1 points*

1. Statistical process control (SPC) consists of four types of control charts: proportion (p), count (c), range (R), and means (X-bar).

* A. True
* **B. False**
* Correct Response   
  First, the charts listed in the statement represent three and not four types of control chortles as the R and X-bar are actually part of a single set of control charts. Second, while these three, proportion (p), count (c), and means-range (X-bar-R), are commonly used control charts, there are several other types of control charts used for different types of data.

*Correct 1/1 points*

1. Control charts compare process performance to customer specifications.

* A. True
* **B. False**
* Correct Response   
  Control charts help identify the inherent potential of processes. They are also used to compare subsequent performance of processes against established inherent potential. By themselves, control charts do not include any information on customer specifications. That said, establishing statistical control is necessary for conducting process capability analysis, which is used to compete process performance to customer specifications.

*Correct 1/1 points*

1. The upper and lower control limits for control charts are always equidistant from the center.

* A. True
* **B. False**
* Correct Response   
  Generally, the upper and lower control limits are calculated as the same number of standard deviations (usually three) from the center line. However, there are situations when these calculations lead to impractical values for the lower control limit (e.g., negative count or proportion), necessitating adjustments and resulting in the lower control limit being closer to the center than the upper control limit.

*Correct 1/1 points*

1. A process is said to be capable of delivering to customer specifications when the process capability ration (Cp) and the process capability index (Cpk) are equal.

* A. True
* **B. False**
* Correct Response   
  A minimum value of 1 for each of the two, the process capability ratio (Cp) and the process capability index (Cpk), is required for the process to be considered capable of delivering to customer specifications. Cp and Cpk values do not have to be equal.

*Correct 1/1 points*

1. In using statistical process control (SPC), variability resulting from common causes is attributable to out of control situations, which should be investigated.

* A. True
* **B. False**
* Correct Response   
  Variability resulting from common causes comprises variability that usually exists within the process. A process that has variability that is limited to common causes is considered a stable system that is predictable and in statistical control.