Stat 513 Final Exam Spring 2012

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name

1. In Quality, any measure we choose should be what?

2. In Taguchi Methodology, briefly define:

a. Noise Variables-

b. Control Variables-

3. In Attributes Charts, why not combine attributes of different types?

4. Let us suppose that we always compute the Cp index for a process, whether or not the process is under control. As we get rid of Special Causes, the Cp value should do what? Why?

5. If I am looking for a certain type of blemish, in rolls of plastic sheeting for example, what type of attribute chart should I use?

6. What is the difference between Regular control chart data and Periodically collected control chart data?

7. There is a graph of Operating Characteristic curves for three different sampling plans. For the sampling plan with n=100, if the Acceptable Quality Level (AQL) is 5% defective,

a. What is the Producer’s Risk if the percent defective is 2.5%?

b. What is the Consumer’s Risk if the percent defective is 7.5%?

8. How can inadequate measurement units affect my estimate of Common Cause and why?

9. For Attributes Charts, when the Area of Opportunity is not equal we convert the data into rates and either use a \_\_\_\_\_\_ chart or a \_\_\_\_\_\_ chart.

10. Regular Control Chart Data are data for which we may choose both the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_ and the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_.

11. What are the four main elements of a Quality Management System?

12. Once your process is under control, the only way to reduce Common Cause variation is to

13. The three components of Quality Costs are: