

Name:

6-Sigma Yellow Belt Final Test/Homework
Friday, March 30, 2007

1. **DMAIC is:**
 - a. A methodology to drive production processes to a 6-sigma statistical capability.
 - b. A project focused methodology consisting of 5 phases; define, measure, analyze, improve and control used to systematically improve processes and sustain process improvements.
 - c. A methodology used to design products in manufacturing
 - d. A methodology to learn to machine metal components

2. **The 6-sigma methodology is a:**
 - a. Is used for dimensional problems only
 - b. Project and team based methodology
 - c. Methodology that replaces Lean concepts
 - d. Methodology that is new in the last five years

3. **The 6-Sigma measure is:**
 - a. A measure of central tendency
 - b. A z-score measurement
 - c. A statistical measure of variation
 - d. A t-test

4. **There are many tools used in the 6-sigma methodology. If you are not sure how to use a tool you have selected you should:**
 - a. Make up an answer
 - b. Look up the tool on-line for instructions
 - c. Ask a friend
 - d. Just use it and learn it on the fly

5. **The PMBOK is:**
 - a. Used to define the 6-sigma body of knowledge
 - b. Project management body of knowledge from PMI
 - c. Comes from the ASQ and defines team phases
 - d. Describes project management which is not part of 6-sigma

6. **To become a Black Belt in the 6-Sigma body of knowledge you must:**
 - a. Pass a test
 - b. Pass a test and demonstrate your understanding by participating in a project
 - c. Complete a project using the 6-sigma methodology
 - d. Send in money for a certificate

▶▶▶▶▶ Questions continue on the back side !!!!

- 7. Typical projects for 6-Sigma are selected using the following criteria:**
- Reducing variation in processes with large variation
 - Customer, financial, and employee related opportunities that are impacting the organization the most
 - Improving processes that are currently at 3.5 sigma
 - What ever the boss thinks is important
- 8. The 6-Sigma methodology is made up of many tools. To find the right tool you would be best to:**
- Just pick on and use it
 - Ask someone that has used the tools before to get advice
 - Check references in the library or on-line to get learn about the tools
 - Both b and c
- 9. Brainstorming and process mapping are tools typically used in the:**
- Define and control phases
 - Measure phase
 - Analyze phase
 - All the DMAIC phases
- 10. The Cause and effect (Fishbone) diagram is used to:**
- Determine CTQ characteristics of a process
 - Brainstorm causes and categorize them into logical categories usually; man, method, machine, materials
 - Calculate sigma
 - Determine the linearity coefficient of a set of data

Written response question:

Briefly explain the “1.5 sigma shift” concept used for calculation in most 6-sigma methodologies. See

<http://www.qualitydigest.com/may01/html/sixsigma.html>

if you get stumped...