

EIN 5226 Midterm Review Questions for Modules 1-3

Module 1

Six Sigma Overview (Chapter 1)

What are the basic activities in each of the steps of the DMAIC process?

When is a process or service considered to be defined as a “six-sigma process.”

What are examples of “satellite level” and 30,000 foot level metrics? What level in the organization are each of these associated with?

What is meant by Enterprise Business Planning Methodology?

What are the typical training levels, roles and responsibilities of Master Black Belts, Black Belts and Green Belts in typical six sigma organizations?

What is the purpose of a project charter and what is contained in it?

What are the traditional cost of quality categories and what types of activities are in each of them?

What is meant by the “Cost of Doing Nothing Different”?

Voice of the Customer (Chapter 2)

What concept does a KANO diagram explain?

What is meant by a SMART goal?

What are the components of a balanced scorecard?

Module 2

Measurements I and II (Chapter 3 and 15.4)

What is meant by common cause variation and special cause variation?

What is meant by sample statistic? By population parameter?

What is a simple random sample?

Construct and interpret simple graphic presentations (histogram, dot plot, stem and leaf plot.)

Understand and determine basic location statistics (mean, median, mode, quartiles, percentiles)

Construct and interpret boxplots.

Identify positively and negatively skewed distributed data and bi- or multi modal distributions.

Understand and calculate measures of dispersion (range, standard deviation, and variance)

What are examples of the types of categorical data?

What is the difference between continuous/variable and discrete/attribute data?

Module 3

Flowcharting (Chapter 4)

What is a flowchart a representation of?

What is a SIPOC?

Where in the DMAIC process can flowcharts be effectively used?

What are the primary symbols used in a flowchart?

Basic Tools I and II (Chapter 5)

What is the purpose of analyzing a run chart

What is the purpose of using a check sheet?

How are Pareto charts constructed and effectively used?

What are the different types of Benchmarking?

Define the purpose of and steps to create a Cause and Effect diagram

How can an Interrelationship Digraph, Tree diagram or Why-Why diagram be used for a similar purpose as a cause and effect diagram.

How can affinity diagrams, nominal group technique and prioritization matrices help to organize and/or prioritize items from a brainstorming session?

What is a Process Decision Program Chart used for?

In performing a Force Field Analysis, what is the focus of the brainstorming performed?

What does a scatter diagram depict? Why must you use caution in making conclusions on relationships depicted in a Scatter diagram?