MULTIPLE CHOICE QUESTIONS

1. A _____ is an intense and rapid improvement process in which a team or a department throws all its resources into an improvement project over a short time period.
   a. kaizen blitz
   b. quality blitzkrieg
   c. rapid deployment
   d. TQ impetus
   Answer: A
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2. Which of the following is not one of the fundamental questions to be asked in a Deming cycle methodology?
   a. What are we trying to accomplish?
   b. Who are the process owners of this quality initiative?
   c. What changes can we make that will result in improvement?
   d. How will we know that a change is an improvement?
   Answer: B
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3. The DMAIC approach used in Six Sigma is expanded as:
   a. Define, Modify, Apply, Increment, and Close.
   b. Design, Measure, Analyze, Implement, and Cost.
   d. Define, Measure, Analyze, Improve, and Control.
   Answer: D
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4. The process of drilling down to a more specific problem statement is called:
   a. root cause analysis.
   b. project scoping.
   c. problem mapping.
   d. variation analysis.
   Answer: B
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5. The characteristics that have the most impact on product or service performance are called:
   a. critical to quality.
   b. critical variances.
   c. excellence features.
   d. essentials.
   Answer: A
. The ____ phase of DMAIC focuses on why defects, errors, or excessive variation occur.
a. Define
b. Measure
c. Analyze
d. Control
Answer: C

. In which phase of the DMAIC process does statistical thinking play a critical role?
a. Define
b. Measure
c. Analyze
d. Control
Answer: C

. The statistically based tools are used extensively to gather and analyze data are referred to as _____ while the seven management and planning tools are been referred to as _____.
a. measurement tools; analysis tools
b. quantitative tools; qualitative tools
c. traditional QC tools; hybrid tools
d. seven QC tools; the new seven
Answer: D

. ____ is a picture of a process that shows the sequence of steps performed.
a. Cause-and-effect diagram
b. Flowchart
c. Pareto diagram
d. Histogram
Answer: B

. Flowcharts are also known as:
a. step charts.
b. Pareto diagrams.
c. process maps.
d. fishbone charts.
Answer: C
. _____ are obtained by counting or from some type of visual inspection while _____ are collected by numerical measurement on a continuous scale.
  a. Attribute data; variable data
  b. Constant data; continuous data
  c. Specific data; variable data
  d. Universal data; control data
Answer: A
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. The number of invoices that contain errors is an example of _____ data.
  a. continuous
  b. variable
  c. attribute
  d. control
Answer: C
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. A histogram is a graphical representation of:
  a. the cause-and-effect relationship of data points.
  b. the variation in a set of data.
  c. historical trend of critical data over a period of time.
  d. critical to quality data.
Answer: B
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. _____ is a technique for prioritizing types or sources of problems.
  a. Cause-and-effect diagram
  b. Pareto analysis
  c. Scatter diagram
  d. A process map
Answer: B
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. Pareto analysis separates the _____ from the _____.
  a. discrete; continuous
  b. quantitative; qualitative
  c. current data; historical data
  d. vital few; trivial many
Answer: D
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. In a Pareto distribution, the characteristics are ordered:
  a. according to the criticality.
  b. from largest frequency to smallest.
  c. historically, from the earliest to the latest.
  d. in a sequential manner based on the work-flow.
Answer: B
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_____ is also known as the Ishikawa diagram.
   a. Pareto diagram
   b. Cause-and-effect diagram
   c. Histogram
   d. Scatter diagrams
Answer: B
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_____ illustrate relationships between hypothesized causes and effects.
   a. Histograms
   b. Pareto diagrams
   c. Scatter diagrams
   d. Cause-and-effects diagrams
Answer: C
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_____ first proposed by Walter Shewhart in 1924, are the backbone of statistical process control.
   a. Pareto charts
   b. Histograms
   c. Control charts
   d. Scatter charts
Answer: C
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Which of the following is not one of the key principles of lean thinking?
   a. Reducing handoffs
   b. Redesigning steps
   c. Performing steps in parallel rather than in sequence
   d. Involving key people early
Answer: B
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_____ is designed to ensure that equipment is operational and available when needed.
   a. Standardized work system
   b. Source inspection
   c. Pull production system
   d. Total productive maintenance
Answer: D
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In the _____ system, upstream suppliers do not produce until the downstream customer signals a need for parts.
a. kaizen
b. reduced handoff
c. standardized work system
d. pull production
Answer: D
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_____ refers to rapid changeover of tooling and fixtures in machine shops so that multiple products in smaller batches can be run on the same equipment.
a. Single minute exchange of dies
b. Total productive maintenance
c. Pull production
d. Seiketsu
Answer: A
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Breakthrough improvement refers to:
a. continuous change.
b. programmed innovation.
c. discontinuous change.
d. a lack of variation.
Answer: C
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Breakthrough improvement is often motivated by:
a. financial controls.
b. stretch goals.
c. Six Sigma objectives.
d. benchmarking.
Answer: B
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_____ is the search for best practices that will lead to superior performance.
a. Benchmarking
b. Flowcharting
c. Alternatives analysis
d. Anchoring
Answer: A
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Two major types of benchmarking are _____ and _____.
a. discrete; continuous
b. historical; progressive
c. quantifiable; nonquantifiable

d. competitive; generic

Answer: D

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. The term _____ refers to approaches that produce exceptional results, are usually innovative in terms of the use of technology or human resources, and are recognized by customers or industry experts.

a. best practices

b. breakthrough practices

c. innovation credits

d. breakthrough standards

Answer: A

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. _____ is focused on breakthrough improvement to dramatically improve the quality and speed of work and to reduce its cost by fundamentally changing the processes by which work gets done.

a. Benchmarking

b. Reengineering

c. Kanban

d. Process mapping

Answer: B

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. A research study identified that the extent to which the process maps onto the dimensions of the business, from a single activity in one function to spanning the entire business unit is critical to the long-term success of reengineering initiatives. What is the reference to?

a. Scope

b. Depth

c. Breadth

d. Reach

Answer: C

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