1) What is the primary focus of quality management?

A) Cost reduction

B) Employee satisfaction

C) Product or service quality

D) Marketing strategies

E) Production speed

Answer: C

Diff: 1

Skill: Knowledge

Objective: Understand the focus of quality management.

2) Which era saw quality become a major focus due to Japanese competition?

A) 1960s

B) 1970s

C) 1980s

D) 1990s

E) 2000s

Answer: C

Diff: 1

Skill: Knowledge

Objective: Identify the historical context of quality focus.

3) Who is known as the father of statistical quality control?

A) Philip Crosby

B) Joseph Juran

C) W. Edwards Deming

D) Walter Shewhart

E) Armand Feigenbaum

Answer: D

Diff: 1

Skill: Recall

Objective: Recognize key figures in quality management.

4) What does TQM stand for?

A) Total Quality Management

B) Technical Quality Measure

C) Total Quantitative Management

D) Technical Quantitative Measure

E) Total Quality Measurement

Answer: A

Diff: 1

Skill: Knowledge

Objective: Recall the full form of TQM.

5) What is the main objective of the ISO?

A) Promoting regional standards

B) Developing personal skills

C) Developing international standards

D) Promoting local businesses

E) Developing governmental regulations

Answer: C

Diff: 1

Skill: Knowledge

Objective: Understand the role of ISO.

6) Which tool is used to monitor process variation?

A) Histogram

B) Check sheet

C) Control chart

D) Pareto chart

E) Scatter diagram

Answer: C

Diff: 1

Skill: Knowledge

Objective: Identify tools used for monitoring process variation.

7) What does Six Sigma aim to achieve?

A) Increase in team size

B) Reduction in process variation

C) Increase in production costs

D) Reduction in team efficiency

E) Increase in raw material usage

Answer: B

Diff: 1

Skill: Comprehension

Objective: Understand the goal of Six Sigma.

8) Which chart is used to prioritize problems based on their magnitude?

A) Control chart

B) Scatter diagram

C) Check sheet

D) Pareto chart

E) Histogram

Answer: D

Diff: 1

Skill: Knowledge

Objective: Identify the use of the Pareto chart.

9) What does a scatter diagram analyze?

A) Frequency of defects

B) Relationship between two variables

C) Steps in a process

D) Cost of quality

E) Distribution of data

Answer: B

Diff: 1

Skill: Knowledge

Objective: Understand the purpose of a scatter diagram.

10) Who advocated for zero defects?

A) W. Edwards Deming

B) Walter Shewhart

C) Philip Crosby

D) Joseph Juran

E) Armand Feigenbaum

Answer: C

Diff: 1

Skill: Recall

Objective: Recognize advocates for quality concepts.

11) What type of costs are associated with preventing defects?

A) Appraisal costs

B) External failure costs

C) Prevention costs

D) Internal failure costs

E) Variable costs

Answer: C

Diff: 1

Skill: Knowledge

Objective: Understand types of quality costs.

12) What is the main focus of the PDCA cycle?

A) Production control

B) Continuous improvement

C) Cost management

D) Employee training

E) Customer service

Answer: B

Diff: 1

Skill: Comprehension

Objective: Recognize the focus of the PDCA cycle.

13) Which quality guru is associated with the 14 Points for Management?

A) Philip Crosby

B) W. Edwards Deming

C) Joseph Juran

D) Walter Shewhart

E) Armand Feigenbaum

Answer: B

Diff: 1

Skill: Recall

Objective: Identify contributions of quality gurus.

14) What is the primary concern of ISO 9001?

A) Environmental management

B) Quality management

C) Health and safety

D) Food safety

E) Risk management

Answer: B

Diff: 1

Skill: Knowledge

Objective: Understand the focus of specific ISO standards.

15) Which of the following is a tool used to find the root cause of a quality issue?

A) Histogram

B) Control chart

C) Fishbone diagram

D) Flowchart

E) Gantt chart

Answer: C

Diff: 1

Skill: Knowledge

Objective: Identify tools for root cause analysis.

16) What does the "Control" step in the DMAIC process ensure?

A) Defects are identified

B) Improvements are sustained

C) Processes are defined

D) Measurements are accurate

E) Analyses are thorough

Answer: B

Diff: 1

Skill: Comprehension

Objective: Understand steps of the DMAIC process.

17) What type of diagram is used to plot the relationship between two variables?

A) Control chart

B) Pareto chart

C) Histogram

D) Fishbone diagram

E) Scatter diagram

Answer: E

Diff: 1

Skill: Knowledge

Objective: Recognize different quality tools.

18) Which quality cost category includes costs of warranties and recalls?

A) Prevention costs

B) Appraisal costs

C) Internal failure costs

D) External failure costs

E) Operational costs

Answer: D

Diff: 1

Skill: Knowledge

Objective: Understand categories of quality costs.

19) What is the key outcome of effective Total Quality Management (TQM)?

A) Reduced marketing costs

B) Increased sales

C) Higher customer satisfaction

D) Larger employee turnover

E) Increased inventory

Answer: C

Diff: 1

Skill: Comprehension

Objective: Understand the outcomes of TQM.

20) What role does a Master Black Belt play in Six Sigma?

A) Provides training

B) Monitors costs

C) Designs products

D) Manages inventory

E) Conducts audits

Answer: A

Diff: 1

Skill: Knowledge

Objective: Identify roles within Six Sigma hierarchy.

21) What is emphasized by the Deming Prize?

A) Marketing excellence

B) Quality improvement

C) Financial management

D) Production speed

E) Inventory reduction

Answer: B

Diff: 2

Skill: Knowledge

Objective: Understand recognitions in quality management.

22) In what decade did American companies begin to prioritize quality in response to competition?

A) 1950s

B) 1960s

C) 1970s

D) 1980s

E) 1990s

Answer: D

Diff: 2

Skill: Recall

Objective: Recognize historical shifts in quality focus.

23) What principle is applied in a Pareto chart?

A) PDCA cycle

B) 80/20 rule

C) Fishbone analysis

D) Control limits

E) Histogram analysis

Answer: B

Diff: 2

Skill: Knowledge

Objective: Identify principles used in quality tools.

24) Which ISO standard is associated with environmental management?

A) ISO 9001

B) ISO 14001

C) ISO 31000

D) ISO 45001

E) ISO 22000

Answer: B

Diff: 2

Skill: Knowledge

Objective: Recognize specific ISO standards.

25) How do control charts help in quality management?

A) They identify training needs

B) They plot employee performance

C) They track variations in processes

D) They schedule production

E) They manage inventory

Answer: C

Diff: 2

Skill: Comprehension

Objective: Understand the application of control charts.

26) Which quality cost is incurred when a customer returns a defective product?

A) Prevention cost

B) Appraisal cost

C) Internal failure cost

D) External failure cost

E) Opportunity cost

Answer: D

Diff: 2

Skill: Comprehension

Objective: Identify types of quality-related costs.

27) What does the "Act" step in the PDCA cycle involve?

A) Initial planning

B) Data collection

C) Implementation of changes

D) Review and adjust

E) Final approval

Answer: D

Diff: 2

Skill: Comprehension

Objective: Understand steps of the PDCA cycle.

28) Who introduced the concept of Zero Defects?

A) Deming

B) Juran

C) Shewhart

D) Crosby

E) Feigenbaum

Answer: D

Diff: 2

Skill: Recall

Objective: Recognize contributions of quality pioneers.

29) What type of diagram is useful for displaying data distribution?

A) Control chart

B) Pareto chart

C) Histogram

D) Fishbone diagram

E) Scatter diagram

Answer: C

Diff: 2

Skill: Knowledge

Objective: Identify tools for data analysis.

30) Which of the following is a quality improvement tool?

A) Balance sheet

B) Pareto chart

C) Cash flow statement

D) Income statement

E) Business plan

Answer: B

Diff: 2

Skill: Knowledge

Objective: Recognize tools used in quality improvement.

31) What principle underlies the concept of TQM?

A) Cost minimization

B) Employee retention

C) Continuous improvement

D) Product diversification

E) Market expansion

Answer: C

Diff: 2

Objective: Understand the core principles of Total Quality Management.

32) Which method focuses on minimizing transportation costs in facility location decisions?

A) Centre of Gravity Method

B) Location Factor Rating Method

C) Break-Even Analysis

D) Pareto Analysis

E) DMAIC Model

Answer: A

Diff: 2

Skill: Knowledge

Objective: Identify methods for facility location decisions.

33) Which costs are involved when a defect is found before it reaches the customer?

A) Prevention costs

B) Appraisal costs

C) Internal failure costs

D) External failure costs

E) Sunk costs

Answer: C

Diff: 2

Skill: Comprehension

Objective: Understand the types of quality costs.

34) What is the key outcome of the Location Factor Rating Method?

A) Finding the lowest cost location

B) Determining the highest total weighted score

C) Identifying the least populated area

D) Assessing the most technologically advanced option

E) Evaluating employee satisfaction

Answer: B

Diff: 2

Skill: Knowledge

Objective: Recognize the outcome of facility location evaluation methods.

35) Which of the following is a characteristic of process quality?

A) Low cost

B) High durability

C) Efficient consistency

D) Quick production

E) Attractive design

Answer: C

Diff: 2

Skill: Knowledge

Objective: Understand elements of process quality.

36) What does ISO 31000 focus on?

A) Quality management

B) Environmental management

C) Risk management

D) Health and safety management

E) Food safety management

Answer: C

Diff: 2

Skill: Knowledge

Objective: Recognize the focus of specific ISO standards.

37) What is measured by the Centre of Gravity Method?

A) Employee performance

B) Cost-effectiveness

C) Environmental impact

D) Transportation costs

E) Market expansion efficiency

Answer: D

Diff: 2

Skill: Knowledge

Objective: Identify what the Centre of Gravity Method measures.

38) Which quality management tool is used to assess and rank potential facility locations?

A) DMAIC

B) PDCA

C) Location Factor Rating Method

D) Six Sigma

E) Control Charts

Answer: C

Diff: 2

Skill: Knowledge

Objective: Recognize tools for facility location decisions.

39) What role does 'Community Factors' play in facility location decisions?

A) They determine the technology used in production.

B) They influence the marketing strategy.

C) They impact the attractiveness of a location.

D) They define the product features.

E) They control the supply chain costs.

Answer: C

Diff: 2

Skill: Comprehension

Objective: Understand factors influencing facility location decisions.

40) What is primarily evaluated by the Centre of Gravity Method?

A) Product quality

B) Market demand

C) Operational costs

D) Geographical coordinates

E) Employee distribution

Answer: D

Diff: 2

Skill: Knowledge

Objective: Identify the focus of the Centre of Gravity Method.

41) How does the Location Factor Rating Method assist in facility location decisions?

A) By determining the lowest cost provider

B) Through evaluating multiple factors with assigned weights

C) By assessing the highest customer satisfaction

D) Through direct measurement of product quality

E) By calculating the shortest delivery time

Answer: B

Diff: 3

Skill: Application

Objective: Apply knowledge of the Location Factor Rating Method.

42) Which quality management principle focuses on minimizing errors by managing potential risks?

A) TQM

B) Six Sigma

C) ISO 9001

D) ISO 31000

E) PDCA

Answer: D

Diff: 3

Skill: Knowledge

Objective: Understand the focus of ISO 31000.

43) In which quality management method is "Defining the scope and objectives" a critical first step?

A) TQM

B) DMAIC

C) PDCA

D) ISO certification process

E) HACCP

Answer: B

Diff: 3

Skill: Application

Objective: Apply the DMAIC process.

44) What does a high score in the Location Factor Rating Method indicate?

A) Low operational efficiency

B) High transportation costs

C) High attractiveness of the location

D) Poor quality control

E) Low customer proximity

Answer: C

Diff: 3

Skill: Comprehension

Objective: Interpret outcomes of the Location Factor Rating Method.

45) Which standard focuses on establishing a quality management system to enhance customer satisfaction?

A) ISO 14001

B) ISO 9001

C) ISO 45001

D) ISO 22000

E) ISO 31000

Answer: B

Diff: 3

Skill: Knowledge

Objective: Recognize the purpose of ISO 9001.

46) What aspect of quality does the Pareto Principle help to improve by focusing on critical contributors?

A) Cost reduction

B) Employee training

C) Process improvement

D) Product design

E) Marketing strategies

Answer: C

Diff: 3

Skill: Application

Objective: Apply the Pareto Principle in quality improvement.

47) What are 'External failure costs' primarily associated with?

A) Customer complaints and returns

B) Employee turnover

C) Supplier delays

D) Internal process inefficiencies

E) Research and development

Answer: A

Diff: 3

Skill: Knowledge

Objective: Understand the implications of external failure costs.

48) Which method quantitatively determines the best location for minimizing transportation costs based on demand?

A) Centre of Gravity Method

B) Break-Even Analysis

C) Location Factor Rating Method

D) Six Sigma

E) DMAIC

Answer: A

Diff: 3

Skill: Knowledge

Objective: Identify methods for optimizing location decisions based on costs.

49) Which factor does not directly impact the evaluation in the Centre of Gravity Method?

A) Market size

B) Geographical location

C) Product price

D) Demand quantity

E) Transportation cost

Answer: C

Diff: 3

Skill: Knowledge

Objective: Discern relevant factors in the Centre of Gravity Method.

50) How does the ISO 31000 standard benefit organizations?

A) By reducing environmental impact

B) Through enhancing product quality

C) By managing and reducing risks

D) By ensuring food safety

E) Through improving employee safety

Answer: C

Diff: 3

Skill: Comprehension

Objective: Understand the benefits of ISO 31000.

51) What does the 'Check' phase in the PDCA cycle involve?

A) Defining objectives

B) Implementing solutions

C) Evaluating results against targets

D) Planning future actions

E) Training employees

Answer: C

Diff: 3

Skill: Knowledge

Objective: Understand the steps of the PDCA cycle.

52) Which quality guru is associated with the concept of "Quality is free"?

A) W. Edwards Deming

B) Philip Crosby

C) Joseph Juran

D) Armand Feigenbaum

E) Walter Shewhart

Answer: B

Diff: 3

Skill: Recall

Objective: Identify the philosophies of quality pioneers.

53) What is the primary aim of Six Sigma?

A) To increase production speed

B) To minimize process variations

C) To enhance marketing strategies

D) To reduce training costs

E) To expand market reach

Answer: B

Diff: 3

Skill: Knowledge

Objective: Understand the aim of Six Sigma.

54) Which quality management tool is essential for tracking variations and maintaining process control?

A) Histogram

B) Pareto chart

C) Control chart

D) Scatter diagram

E) Check sheet

Answer: C

Diff: 3

Skill: Application

Objective: Identify tools for process control.

55) What does the ISO 45001 standard focus on?

A) Quality management

B) Environmental management

C) Occupational health and safety

D) Food safety

E) Risk management

Answer: C

Diff: 3

Skill: Knowledge

Objective: Recognize the focus of ISO 45001.

56) In TQM, what is the significance of continuous improvement?

A) It focuses solely on reducing costs.

B) It enhances product design only.

C) It aims to improve every aspect of operations.

D) It is concerned with employee benefits.

E) It deals with external partnerships.

Answer: C

Diff: 3

Skill: Comprehension

Objective: Understand the concept of continuous improvement in TQM.

57) Which is an outcome of effective application of the Location Factor Rating Method?

A) Decrease in product quality

B) Increase in production time

C) Identification of the most suitable location

D) Reduction in employee satisfaction

E) Increase in material costs

Answer: C

Diff: 3

Skill: Application

Objective: Apply the Location Factor Rating Method.

58) What is the role of 'Community Factors' in the Location Factor Rating Method?

A) They determine the price of products.

B) They influence the selection of technology.

C) They affect the attractiveness of a location.

D) They dictate production methods.

E) They control the supply chain logistics.

Answer: C

Diff: 3

Skill: Comprehension

Objective: Understand the impact of community factors on location decisions.

59) How do external failure costs impact an organization?

A) They lead to increased production speeds.

B) They result in higher customer satisfaction.

C) They cause reduced operational efficiency.

D) They incur significant financial losses and damage reputation.

E) They improve product quality over time.

Answer: D

Diff: 3

Skill: Comprehension

Objective: Understand the impact of external failure costs on an organization.

60) What aspect of facility location decision is primarily impacted by the Location Factor Rating Method?

A) Employee distribution

B) Environmental compliance

C) Strategic positioning based on weighted factors

D) Local marketing strategies

E) Immediate financial investments

Answer: C

Diff: 3

Skill: Comprehension

Objective: Assess the strategic impact of the Location Factor Rating Method on facility location decisions.