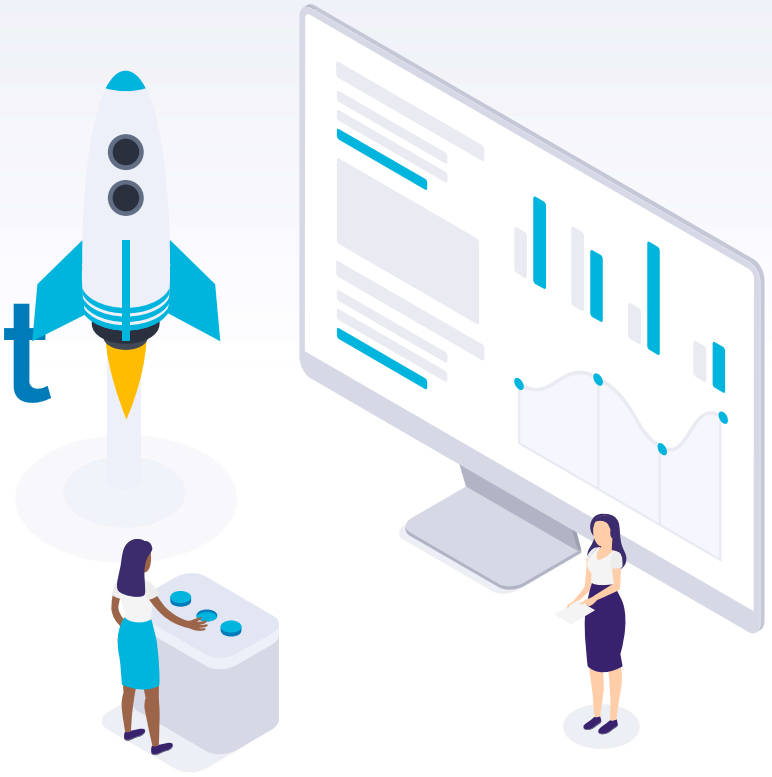
1

Course Content

Let's start with the first set of slides



I.Auditing Fundamentals(27 Questions)

A. Types of Quality Audits

1. Method

Define, differentiate, and analyze various audit types by method: product, process, desk, department, function, element, system, management. (Analyze)

2. Auditor-auditee relationship

Define, differentiate, and analyze various audit types by auditorauditee relationship: first-party, second-party, third-party, internal and external. (Analyze)

3. Purpose

Define, differentiate, and analyze various audit types by purpose: verification of corrective action (follow-up) audits, risk audits, accreditation (registration) and compliance audits, surveillance and for-cause audits. (Analyze)

4. Common elements with other audits

Identify elements such as audit purpose, data gathering techniques, tracing, etc., that quality audits have in common with environmental, safety, financial, and other types of audits. (Apply)

B. Purpose and Scope of Audits

1. Elements of purpose and scope

Describe and determine how the purpose of an audit can affect its scope. (Apply)

2. Benefits of audits

Analyze how audits can be used to provide an independent assessment of system effectiveness and efficiency, risks to the bottom line, and other organizational measures. (Analyze)

C. Criteria to Audit Against

Define and distinguish between various audit criteria, such as external (industry, national, international) standards, contracts, specifications, quality awards, policies, internal quality management system (QMS), sustainability, social responsibility, etc. (Analyze)

D. Roles and Responsibilities of Audit Participants

Define and describe the functions and responsibilities of various audit participants, including audit team members, lead auditor, client, auditee, etc. (Apply)

E. Professional Conduct And Consequences for Auditors

1. Professional conduct and responsibilities

Define and apply the ASQ Code of Conduct, concepts of due diligence and due care with respect to confidentiality and conflict of interest, and appropriate actions in response to the discovery of illegal activities or unsafe conditions. (Apply)

2. Benefits of audits

Analyze how audits can be used to provide an independent assessment of system effectiveness and efficiency, risks to the bottom line, and other organizational measures. (Analyze)

I.Auditing Fundamentals(27 Questions)

A. Audit Preparation and Planning

1. Elements of the audit planning process

Evaluate and implement the basic steps in audit preparation and planning: verify audit authority; determine the purpose, scope, and type of audit; identify the requirements to audit against and the resources necessary, including the size and number of audit teams. (Evaluate)

2. Auditor selection

Identify and examine various auditor selection criteria, such as education, experience, industry background, and subject matter or technical expertise. (Analyze)

3. Audit-related documentation

Identify the sources of pre-audit information and examine auditrelated documentation, such as audit criteria references and results from prior audits. (Analyze)

4. Logistics

Identify and organize audit-related logistics, including travel, safety and security considerations, the need for escorts, translators, confidentiality agreements, clear right of access, etc. (Analyze)

5. Auditing tools and working papers

Identify the sampling plan or method and procedural guidelines to be used for the specific audit. Select and prepare working papers (checklists, log sheets, etc.) to document the audit. (Create)

6. Auditing strategies

Identify and use various tactical methods for conducting an audit, such as forward and backward tracing, discovery, etc. (Apply)

B. Audit Performance

1. On-site audit management

Interpret situations throughout the performance of the audit to determine whether time is being managed well and when changes need to be made, such as revising planned audit team activities, reallocating resources, adjusting the audit plan, etc., and communicate with the auditee about any changes or other events related to the audit. (Analyze)

2. Opening meeting

Manage the opening meeting of an audit by identifying the audit's purpose and scope, describing any scoring or rating criteria that will be used during the audit, creating a record of the attendees, reviewing the audit schedule, and answering questions as needed. (Apply)

3. Audit data collection and analysis

Use various data collection methods to capture information: conducting interviews, observing work activities, taking physical measurements, examining documents, etc. Evaluate the results to determine their importance for providing audit evidence. (Evaluate)

4. Establishment of objective evidence

Identify and differentiate characteristics of objective evidence, such as observed, measured, confirmed or corroborated, and documented. (Analyze)

5. Organization of objective evidence

Classify evidence in terms of significance, severity, frequency, and level of risk. Evaluate the evidence for its potential impact on product, process, system, cost of quality, etc.,

6. Exit and closing meetings

Formally manage these meetings: reiterate the audit's purpose, scope, and scoring or rating criteria, and create a record of the attendees. Present the audit results and obtain concurrence on evidence that could lead to an adverse conclusion. Discuss the next steps in the process (follow-up audit, additional evidence-gathering, etc.), and clarify who is responsible for performing those steps. (Apply

C. Audit Reporting

1. Report development and content

Group observations into actionable findings of significance, and identify the severity and risk to the client and the auditee.

Use appropriate steps to generate the audit report: organize and summarize details, review and finalize results, emphasize critical issues, establish unique identifiers or codes for critical issues to facilitate tracking and monitoring, etc. (Create)

2. Effective reports

Develop and evaluate components of effective audit reports, including background information,executive summary, prioritized results (observations, findings, opportunities for improvement, etc.). Use graphical tools or other means of emphasizing conclusions, and develop a timeline for auditee response and/or corrections. (Create)

3. Final audit report steps

Obtain necessary approvals for the audit report and distribute it according to established procedures. Identify the contents of the audit file and retain the file in accordance with established policies and procedures. (Apply

D. Audit Follow-Up and Closure

1. Elements of the corrective action process

Identify and evaluate various elements: assignment of responsibility for problem identification; the performance of root cause analysis and recurrence prevention. (Evaluate)

2. Review of corrective action plan

Evaluate the acceptability of proposed corrective actions and schedule for completion. Identify and apply strategies for negotiating changes to unacceptable plans. (Evaluate)

3. Verification of corrective action

Determine the adequacy of corrective actions taken by verifying and evaluating new or updated procedures, observing revised processes, conducting follow-up audits, etc. (Evaluate)

4. Follow-up on ineffective corrective action

Develop strategies to use when corrective actions are not implemented or are not effective, such as communicating to the next level of management, reissuing the corrective action request, and re-auditing. (Create

5. Audit closure

Identify and apply various elements of, and criteria for, audit closure (Apply)

III. Auditor Competencies (25 Questions

A. Auditor Characteristics

Identify characteristics that make auditors effective: interpersonal skills, problem-solving skills, attention to detail, cultural awareness and sensitivity, ability to work independently as well as in a group or on a team, etc. (Apply)

B. On-Site Audit Resource Management

Identify and apply techniques for managing audit teams, scheduling audit meetings and activities, making logistical adjustments, etc. (Apply)

C. Conflict Resolution

Identify typical conflict situations (mild to vehement disagreements, auditee delaying tactics, interruptions, etc.)

and determine appropriate techniques for resolving them: clarifying the question or request, reiterating ground rules, intervention by another authority, cool-down periods, etc. (Analyze)

D. Communication and Presentation Techniques

Select and use written, oral, and electronic communication techniques for presentations made during audits for opening, closing, ad-hoc meetings, etc. Use technical and managerial reporting techniques, including graphs, charts, diagrams, multimedia aids, etc., in various situations: domestic, global, in-person, virtual (e-audits), multiple sites simultaneously, etc. (Evaluate)

E. Interviewing Techniques

Select and use appropriate interviewing techniques and methodologies. (Apply)

1. Use open-ended or closed question types

2. Use active listening, paraphrasing, empathy, etc. 3. Recognize and respond to non-verbal cues: body language, the significance of pauses and their length, etc. adjustments, etc. (Apply)

F. Team Dynamics

Define, describe, and apply various aspects of team dynamics. (Apply)

1.Team-building: clarifying roles and responsibilities for participants and leaders to ensure equitable treatment for all team members, providing clear direction for deliverables, identifying necessary resources and ensuring their availability, etc.

2.Team facilitation: providing coaching and guidance, defusing clashes between members, eliciting input from all, cultivating objectivity, overseeing progress, encouraging diverse views and consensus, etc.

3. Stages of team development: forming, storming, norming,and performing

IV. Audit Program Management and Business Applications (30 Questions)

A. Audit Program Management

1. Senior management support

Identify characteristics that make auditors effective: interpersonal skills, problem-solving skills, attention to detail, cultural awareness and sensitivity, ability to work independently as well as in a group or on a team, etc. (Apply)

2. Staffing and resource management

Develop staffing budgets that provide adequate time for auditors to plan, conduct, and respond to scheduled audits, including time and resources that internal auditees need to participate. Identify any special equipment resources needed and ensure their adequacy and availability

and determine appropriate techniques for resolving them: clarifying the question or request, reiterating ground rules, intervention by another authority, cool-down periods, etc. (Analyze)

2. Staffing and resource management

Identify minimum audit knowledge and skill requirements for auditors. Provide training on various aspects of the audit process such as relevant standards, regulatory influences, facilitation techniques, etc. Provide training on diversity and cultural influences (ethnicity, gender, age, organized labor, etc.) and how such factors can affect communications and other interactions among audit participants. (Create

4. Audit program evaluation

Select the correct metric to evaluate the audit program, including tracking its effect on the bottom line and the risk to the organization. (Evaluate

5. Internal audit program management

Develop procedures, policies, and schedules to support the organization's objectives. Review internal audit results to identify systemic trends. (Create)

6. External audit program management

Develop procedures, policies, and schedules in support of the supplier management program, including supplier qualification surveys, surveillance audits, supplier improvement, etc. (Create)

7. Best practices

Analyze audit results to standardize best practices and lessons learned across the organization. (Analyze

8. Organizational risk management

Analyze how the audit program affects an organization's risk level and how the risk level can influence the number and frequency of audits performed. (Analyze) [Note: Tools and techniques for managing risk are covered in BoK area V.H.]

9. Management review input

Examine and summarize audit program results, trends, and changes in risk to provide input to management reviews. (Evaluate

B. Business and Financial Impact

1. Auditing as a management tool

Use audit results to monitor continuous improvement, supplier management, customer satisfaction, etc., and to provide management with an independent view of the strategic plan's effectiveness and how well it is deployed. (Analyze

2. Interrelationships of business processes

Identify how business units (receiving, product and process design, production, engineering, sales, marketing, field support, etc.) and multiple sites are interrelated, and recognize how their unique metrics and goals can be in conflict with one another. (Understand)

3. Cost of quality (COQ) principles

Identify, describe, and analyze the audit program's effect on the four COQ categories: prevention, appraisal, internal failure, external failure. (Analyze)

4. Emerging roles of the auditor

Recognize new roles and responsibilities for auditors, such as being process consultants and facilitators who can help resolve internal issues, improve processes, and add value to the organization. (Understand)

V. Quality Tools and Techniques (26 Questions)

A. Basic Quality and Problem-solving Tools

Identify, interpret, and analyze: 1) Pareto charts, 2) cause and effect diagrams, 3) flowcharts, 4) statistical process control (SPC) charts, 5) check sheets, 6) scatter diagrams, 7) histograms, 8) root cause analysis, 9) plan-do-check-act (PDCA). (Analyze

B. Process Improvement Techniques

1. Six Sigma

Identify, interpret, and apply the Six Sigma DMAIC phases: define, measure, analyze, improve, control. (Apply)

2. Lean

Identify, interpret, and apply lean tools: 5S, standard operations, kanban (pull), error-proofing, valuestream mapping, etc. (Apply)

C. Basic Statistics

1. Measures of central tendency

Identify, interpret, and use mean, median, and mode. (Apply)

2. Measures of dispersion

Identify, interpret, and use standard deviation and frequency distribution. (Apply)

3. Qualitative and quantitative analysis

Describe qualitative data in terms of the nature, type, or attribute of an observation or condition. Describe how quantitative data is used to detect patterns or trends and how such analysis can indicate whether a problem is systemic or isolated. (Understand)

D. Process Variation

1. Common and special cause

Identify and distinguish between common and special cause variation. (Apply)

2. Process performance metrics

Describe elements of Cp and Cpk process capability studies (process centering and stability, specification limits, underlying distribution, etc.), and how these studies and other performance metrics are used in relation to established goals. (Understand)

2. Measures of dispersion

Describe their significance and impact. (Understand)

E. Sampling Methods

1. Acceptance sampling plans

Identify and interpret these plans for attributes and variables data. (Understand)

2. Types of sampling

Describe and distinguish between random, stratified, and cluster sampling, and identify the uses and potential problems of nonstatistical sampling. (Understand)

3. Sampling terms

Define related terms including consumer and producer risk, confidence level, etc. (Understand)

F. Change Control and Configuration Management

Identify the principles of change control and configuration management systems as used in various applications: hardware, software (including security considerations), product, process, and service. (Understand)

E. Sampling Methods

Define, distinguish between, and use various methods of verifying and validating processes. (Analyze)

H. Risk Management Tools

Identify methods for managing risk, including risk avoidance, mitigation, tradeoffs, etc., and describe tools and methods for estimating and controlling risk: failure mode and effects analysis (FMEA), hazard analysis and critical control points (HACCP), critical to quality (CTQ) analysis, health hazard analysis (HHA), etc. (Understand) [Note: Organizational risk management is covered in BoK area IV.A.8.]