



Hong Kong Institution of Certified Auditors

香港專業審核師學會

HKICA-CC10E

Certification Scheme of Testing and Calibration

Laboratory Management Auditors

Examination Syllabus

The Secretary, Room 108, 1/F Sun Ling Plaza, 30 On Kui Street,
Fanling, New Territories

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FOREWORD

All public documents of HKICA are issued in both Chinese and English version. The latest issue will be uploaded to the Scheme website.

Applicant can contact the Secretariat for information regarding the Certification Scheme for Testing and Calibration Laboratory Management System Auditor by the following means:

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The Hong Kong Institution of Certified Auditors (HKICA) was established in 2006. It is a non-profit making organization providing services to the quality, Testing and Calibration Laboratory, occupational health & safety, food safety, laboratory and other management systems auditing professions in Hong Kong. Its Executive Board comprises members from universities, public authorities, governmental organizations, certification bodies and management systems consultants in Hong Kong.

1. Its primary objectives are:

- (a) to promote the status of management system auditors to the public as a profession;
- (b) to establish a local based lead auditors and auditors registration system in accordance with ISO/IEC 19011:2018 and relevant standards and to maintain a database of all registered auditors in the HKICA website for the benefit of the industry;
- (c) to set up personnel certification schemes for different levels of management system auditors in accordance with the requirements of ISO/IEC 17024:2012, CNAS-CC03:2014 and IPC-PL-11-006;
- (d) to deliver auditing related seminars and workshops which are of common interests to local auditing profession;



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- (e) to provide a focal point where registered auditors and certified auditors can get together for exchange of experience and knowledge and fostering of future developments in the related professions;
- (f) to liaise with overseas equivalent bodies for reciprocal recognition of auditors certification schemes; and
- (g) to approve auditing and related training courses for recognition by the auditing profession and the public in accordance with the international practice.

2. Background

2.1. Determined to avert the lack of recognition of professional status of auditor locally, a Certification Scheme of Testing and Calibration Laboratory Management System Auditor (CST&CLMSA) was established by HKICA in August 2019 with the following aims:

- (a) to give professional recognition to the auditing practitioners so as to attract and retain talented and skilful personnel to enter into the auditing industry where Hong Kong enjoys clear advantages and has good potential for further development;
- (b) to set benchmarks for the upgrade of expertise and knowledge of the certification personnel;
- (c) to improve the professional image of Hong Kong certification industry and contribute to the building up of brand name for Hong Kong certification services; and
- (d) to become a renowned public personnel certification body in the Asia Pacific Region.



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3. The Hong Kong Institution of Certified Auditors is the sole organization in Hong Kong providing the certification service for Testing and Calibration Laboratory Management System Auditor (CST&CLMSA).

3.1. The benefits of certification include:

- 3.1.1. recognition and prestige for the individual and creation of a competitive advantage over non-certified individuals in the same field;
- 3.1.2. enhanced employment opportunities;
- 3.1.3. establishment of a professional standard for individuals in a particular auditing field;
- 3.1.4. assistance to employers in making more informed recruitment decisions;
- 3.1.5. a more productive and highly trained workforce for employers;
- 3.1.6. enhanced professional impression on customers;
- 3.1.7. assistance to customers in making informed decisions about qualified auditors and prevention of using incompetent and unfit practitioners; and assurance of the accuracy and validity of auditing results.



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1. SCOPE

- 1.1. This document prescribes procedures by which personnel may be examined and, if successful, certified as Testing and Calibration Laboratory management system auditor.

2. REFERENCES

- 2.1. IPC (BD-05-007) “Specification for the Development of Examinations as Part of a Certification Scheme for MS Auditors”
- 2.2. ISO 19011: 2018 “Guidelines for auditing management systems”
- 2.3. ISO 17025:2017 “General requirements for the competence of testing and calibration laboratories”
- 2.4. BS EN ISO/IEC 17024:2012 “Conformity assessment — General requirements for bodies operating certification of persons”
- 2.5. ISO/IEC 17021-1:2015 “Conformity assessment – Requirements for bodies providing audit and certification of management systems – Part 1: Requirements
- 2.6. CNAS-CC03:2014 “General requirements for bodies operating certification of persons (ISO/IEC 17024:2012, IDT)”
- 2.7. IPC_PL_11_006 “Certification Scheme for Management System Auditors”
- 2.8. IPC-PL-14-05 “Common requirements for IPC certification schemes”



3. TERMS AND DEFINITIONS

In view of any difference of the terms and definition giving below and other standards, the definitions as stipulated in this Criteria will be followed.

- 3.1. **Certification process:** activities by which a certification body determines that a person fulfils **certification requirements** including application, assessment, decision on certification, recertification and use of **certificates** and logos/marks.
- 3.2. **Certification scheme competence:** and other requirements related to specific occupational or skilled categories of persons.
- 3.3. **Certification requirements:** set of specified requirements, including requirements of the scheme to be fulfilled in order to establish or maintain certification.
- 3.4. **Scheme owner:** organization responsible for developing and maintaining a **certification scheme**.
- 3.5. **Certificate:** document issued by a certification body under the provisions of this International Standard, indicating that the named person has fulfilled the **certification requirements**.
- 3.6. **Competence:** ability to apply knowledge and skills to achieve intended results.
- 3.7. **Qualification:** demonstrated education, training and work experience, where applicable.
- 3.8. **Assessment:** process that evaluates a person's fulfillment of the requirements of the **certification scheme**.
- 3.9. **Examination:** mechanism that is part of the **assessment** which measures a **candidate's competence** by one or more means, such as written, oral, practical and observational, as defined in the **certification scheme**.

- 3.10. **Examiner:** person competent to conduct and score an **examination**, where the examination requires professional judgement.
- 3.11. **Invigilator:** person authorized by the certification body who administers or supervises an **examination**, but does not evaluate the **competence** of the **candidate**.
- 3.12. **Personnel:** individuals, internal or external, of the certification body carrying out activities for the certification body.
- 3.13. **Applicant:** person who has submitted an application to be admitted into the **certification process**.
- 3.14. **Candidate applicant:** who has fulfilled specified prerequisites and has been admitted to the **certification process**.
- 3.15. **Impartiality:** presence of objectivity (Objectivity means that conflicts of interest do not exist, or are resolved, so as not to adversely influence subsequent activities of the certification body.)
- 3.16. **Fairness:** equal opportunity for success provided to each **candidate** in the **certification process**.
- 3.17. **Validity:** evidence that the **assessment** measures what it is intended to measure, as defined by the **certification scheme**.
- 3.18. **Reliability:** indicator of the extent to which **examination** scores are consistent across different examination times and locations, different examination forms and different **examiners**.
- 3.19. **Appeal:** request by **applicant**, **candidate** or certified person for reconsideration of any decision made by the certification body related to her/his desired certification status.
- 3.20. **Complaint:** expression of dissatisfaction, other than **appeal**, by any individual or organization to a certification body, relating to the activities of that body or a certified person, where a response is expected.

3.21. **Interested party:** individual, group or organization affected by the performance of a certified person or the certification body.

3.22. **Surveillance:** periodic monitoring, during the periods of certification, of a certified person's performance to ensure continued compliance with the certification scheme.

3.23. **Continuing Professional Development Units (CPDU):**

measuring unit used to quantify approved learning and professional service activities. Typically, one CPDU is earned for every one hour spent in a planned, structured learning experience or activity.

3.24. **Audit:** systematic, independent and documented process for obtaining audit evidence and evaluating it objectively to determine the extent to which audit criteria are fulfilled.

Note 1: Audit as defined in this Criteria refers only to external audit including those generally termed second- and third-party audits. Second-party audits are conducted by parties having an interest in the organization, such as customers, or by other persons on their behalf. Third-party audits are conducted by external, independent auditing organizations.

Note 2: When two or more management systems are audited together, this is termed a combined audit.

Note 3: When two or more auditing organizations cooperate to audit a single auditee, this is termed a joint audit.

3.25. **Audit criteria:** set of policies, procedures or requirements used for audits.

3.26. **Auditor:** person with the demonstrated personal attributes and competence to conduct an audit.

3.27. **IPC MS Auditor:** person with the demonstrated personal attributes and competence to initiate, plan, execute and report first and second party audits within quality or environment management in accordance with ISO 19011.

3.28. **IPC MS Lead Auditor:** person with the demonstrated personal attributes and competence to be an IPC Management System Auditors, and in addition are competent to lead an audit team of one or more additional auditors or technical experts. The lead auditors are able to initiate, plan, execute and report first-, second- and third-party audits within quality or environment management in accordance with ISO 19011 and ISO/IEC 17021-1 in the role as sole auditor, member of an audit team or as audit team leader.

3.29. **Audit team:** one or more auditors conducting an audit, supported if needed by technical experts.

Note1: One auditor of the audit team is appointed as the audit team leader.

Note 2: The audit team may include auditors-in-training or assistant auditor.

3.30. **Complete audit:** the entire audit process from preparation to reporting in accordance with ISO 19011 or ISO/IEC 17021-1

3.31. **CNAS:** China National Accreditation Service for Conformity Assessment

3.32. **CCAA:** China Certification and Accreditation Association

3.33. **HKAS:** Hong Kong Accreditation Services

3.34. **HKICA :** Hong Kong Institute of Certified Auditors

3.35. **IPC:** International Personnel Certification Association

For any other terms not listed above, the relevant definitions in ISO/IEC 17000:2004 and the International Vocabulary of Basic and General Terms in Metrology apply.



4. GENERAL

- 4.1. This document is developed based on HKICA-CC41 “Certification Scheme of Testing and Calibration Laboratory Management System Auditor – Certification Criteria”. It prescribes unify procedure in conducting oral and written examination by which personnel are assessed in an objective, impartial and comprehensive way in ensuring that they meet the clause 5.3 “Knowledge and competence requirements” of the certification criteria. This document applies for applicants for different levels.

5. EXAMINATION REQUIREMENTS

5.1. Written examination test subjects

- 5.1.1. Applicants for Certified Internal Auditor shall obtain satisfactory results in the "Basic Knowledge" Examination.
- 5.1.2. Applicants for Certified Auditor shall obtain satisfactory results in the “Auditing Knowledge and Techniques” Examination.
- 5.1.3. Applicants for Certified Lead Auditor shall obtain satisfactory results in the “Management Theory and Application” Techniques.
- 5.1.4. Candidates shall strictly abide by the examination rules (see Annex A), and consciously obey the instructions of invigilators and other examination staff.

5.2. Examination

- 5.2.1. The written examination is a closed book assessment. All examination papers are prepared by HKICA. Examination questions are drawn randomly from the database of questions before the examination. The questions will be reviewed at least once a year or as when necessary.
- 5.2.2. Duration of the "Basic Knowledge" Examination is 1 hour.
- 5.2.3. Duration of the “Auditing Knowledge and Techniques” and “Management Theory and Application” Examination is 2 hours.
- 5.2.4. Candidates are not allowed to carry any reference materials or standards for examination. HKICA shall provide ISO/IEC 17025:2017 and ISO 19011:2018 as reference.

5.3. Types of Examination questions and scores

5.3.1. "Basic Knowledge" Examination question types and weighing

Scope of examination		Weighing (%)
Requirements for ISO/IEC 17025 standard		50
Professional knowledge for operating competently in a laboratory		25
ISO 19011 guidelines for auditing management systems		20
Personal attributes, code of conduct		5
Types of questions	Marks for each question	Sub-total marks
Multiple choice	30 x 3	90
True or False	15 x 2	30

5.3.2. "Auditing Knowledge and Techniques" Examination question types and weighing

Scope of examination		Weighing (%)
Application of ISO/IEC 17025 standard and other normative documents		35
Testing and Calibration Laboratory management system professional knowledge		15
Management system audit processes and application		45
Personal attributes, code of conduct		5
Types of questions	Marks for each question	Sub-total marks
Multiple choice (single answer)	11 x 2	22
Multiple choice (multiple answers)	6 x 3	18
True or False	5 x 2	10
Case study	5 x 6	30
Elaborate type question	2 x 10	20

5.3.3. "Management Theory and Application" Examination question types and weighing

Scope of examination		Weighing (%)
Integrated competence in Testing and Calibration Laboratory management system audit		55
Testing and Calibration Laboratory management system professional knowledge		40
Personal attributes, code of conduct		5
Types of questions	Marks for each question	Sub-total marks
Multiple choice	15 x 2	30
Case study	5 x 6	30
Elaborate type question	2 x 10	20
Essay type question	1 x 20	20

5.3.4. The written examination is a combination of several of the following examination methods. Questions shall be within the area of competence described in this document.

- Multiple choice questions: Multiple Choice is a form of assessment in which applicants are asked to select the right answer out of 4 to 5 possibilities.
- True and false question: applicants are asked to determine the given statement is true or false.
- Audit text analysis (case study): After a short description of an organization, some audit observations are described. The applicant is asked to identify which ones are nonconformities, giving correct references to violation of requirement and explain the nonconformities in writing in an understandable and professional manner.
- Elaborate type question: An elaborate question is a form of assessment in which the applicant is asked to write the answer within a space of half page. Typical questions are to describe the meaning of a concept, the purpose of a requirement or similar.
- Essay type questions: An essay question is a form of assessment in which the applicant is asked to express and elaborate their view point concerning a concept, the purpose of a requirement or similar.

5.3.5. All candidates shall adhere to the Examination Rules as given in Appendix 1.



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5.4. Marking system

5.4.1. Model answer shall be set for each multiple choice questions. Marks will be given for correct answers and marks will not be deducted for wrong answer.

5.4.2. Marks should be allocated according to key points of answers for short and essay questions. Mark allocation is determined by the Examination Board. Summary is given below:

- (a) Case study: 2 marks will be given for one point, maximum 3 points and a total of 6 marks.
- (b) Elaborate type question: 2 marks will be given for one point, maximum 5 points and a total of 10 marks.
- (c) Essay type question: 2 marks each will be given for one point and related rationale, maximum 5 points and rationales with a total of 20 marks.

5.5. Evaluation of examination results

5.5.1. Total mark of "Basic Knowledge" Examination is 120 and the passing mark is 84.

5.5.2. Total mark of "Auditing Knowledge and Techniques" Examination is 100 and the passing marks is 70.

5.5.3. Total mark of "Management Theory and Application" Examination is 100 and the passing marks is 70.

5.6. Oral examination (interview evaluation)

5.6.1. Applicants

Applicants for lead auditor fulfilling the auditing criteria of HKICA-CC41E C.5.1.4a) can apply for oral examination.

5.6.2. Examination syllabus and weighing

The examination syllabus follows the same content and weighing as this document C.5.5.3 "Management Theory and Application".

Scope of examination	Weighing (%)
Integrated competence in Testing and Calibration Laboratory management system audit	55
Professional knowledge for operating competently in a laboratory	40
Personal attributes, code of conduct	5

5.6.3. The interview is conducted by a team of two professional evaluators and will last for around 45 minutes. The Operation Manager will liaise with the applicants and evaluators of the time and venue for conducting the interview.

5.6.4. All candidates shall follow the examination rules. Candidates should switch off the mobile. During interview, they cannot use any reference, electronic media such as mobile or notebook, etc. Smoking is prohibited. Without permission of the evaluator, candidates cannot leave the examination venue.

5.6.5. Evaluators will assess the personal attributes and ethics of the candidates by appropriate method(s) under oral examination. The procedures for structured interview are as follows:

a) Evaluator will check and confirm the identity of the candidates, working and auditing experience. (~ 5 minutes)

b) Integrated competence in Testing and Calibration Laboratory management system audit (~ 25 minutes)

The evaluator will raise questions on either cases of HKICA or the real audit of the candidates. The interview is a combination of questioning, answering and counter interaction. The evaluators assess the auditing technique of the candidates and mark.

c) Professional knowledge for operating competently in a laboratory (~ 15 minutes)

The evaluator will select questions from HKICA's database. The interview is a combination of questioning, answering and counter interaction. The evaluators assess the knowledge of the candidate in this aspect and mark.



5.7. Examination frequency and location

5.7.1. Examination in principle is organized once every six months. The certification body will also organize irregular examination depending on the need. Applicants will be notified of unscheduled examination and they need to inform the Secretariat their intention in participation in such examination.

5.7.2. HKICA will announce in the scheme website the tentative examination date two months in advance. The examination venue will be announced one month ahead of the examination.

5.8. Examination Fees

5.8.1. Examination shall be paid in accordance with the fee structure as stipulated in HKICA03E “Schedule of Fee for Person Certification”.

5.8.2. The examination fee is non-refundable after the registration deadline no matter the applicant attends the examination or not.

5.9. Release of test results

5.9.1. HKICA will announce the list of personnel passing the examination within one month from the examination. In case of legal holiday, the date will be postponed accordingly.

5.10. Cancellations, Rescheduling, No Shows

5.10.1. If candidate needs to cancel or reschedule an interview or an examination, he/she must do so no later than 48 hours before the scheduled appointment.

5.10.2. If he/she fails to notify the appropriate party within the specified time period and/or fails to meet a scheduled examination appointment, he/she forfeits the full certification fee and will have to pay the full certification fee in order to schedule another interview or examination.

5.10.3. There are times when extenuating circumstances (e.g. medical emergency, death in immediate family, illness in immediate family) may prevent a candidate from meeting a scheduled interview or examination appointment, resulting in a no show. Should such a situation arise, the candidate will be asked to provide explanations along with supporting documentation (e.g. accident report, medical documentation, death



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certificate). If he/she does not make contact within 72 hours following a missed appointment, fees will apply in order to schedule a new appointment. All claims will be reviewed on a case-by-case basis. The candidate is allowed a maximum of one year, from the date of application is approved, to apply for re-examination.

6. BASIC KNOWLEDGE EXAMINATION SYLLABUS

- 6.1.1. Understand the standard “ISO/IEC 17025 General requirements for competence of Testing and Calibration Laboratory”.
- 6.1.2. understand some of the terms and their interrelationship of ISO/IEC 17025 9000 standard
impartiality and confidentiality, organization, personnel competence, environmental condition, equipment, metrological traceability, externally provided products and services, contract review, selection and validation/verification of method, sampling, sample handling, technical records, measurement uncertainty, quality control, reports of results, statement of conformity, complaints, nonconforming work, control of data and LIMS, management system documentation and record control, risk and opportunities, corrective action and internal audits, improvement, management review .
- 6.1.3. understand the fundamentals and principles ISO 9000 series
- 6.1.4. understand the concepts of management system and process approach.
- 6.1.5. understand the general, structural, resource, process and management system requirements of the ISO/IEC 17025 standard.
- 6.1.6. understand normative standards and guidelines for implementation of ISO/IEC 17025.
- 6.2. Testing and Calibration Laboratory Management System Audit
 - 6.2.1. Content of ISO19011:2018 Clause 3, 4, 6.3 and 6.4.
 - 6.2.2. Requirements of ISO/IEC 17021-1:2015 “Conformity assessment – Requirements for bodies providing audit and certification of management system – Part 1: Requirements clauses 9.2, 9.2 – 9.6 in relation to audit and certification.

6.2.3. Understand the application of the principles, procedures and techniques of auditing;

- a) risk-based approach to planning
- b) relate the auditee management system to the audit criteria;
- c) understand how to implement effective audit in the auditee organization's environment;
- d) understand the suitability and consequences of application of sampling technique during audit;
- e) maintain confidentiality and security of information;
- f) Practice personal attributes necessary for the effective and efficient conduct of a management system audit.

6.3. Testing and Calibration Laboratory management professional knowledge

6.3.1. Understand the Testing and Calibration Laboratory management tools, methods and techniques:

- a) Understand the types of risks and opportunities approach to auditing
- b) Plan and organize the work effectively
- c) Time management
- d) Prioritize and focus on matters of significance
- e) Communicate effectively
- f) Collecting information to reaching audit conclusion
- g) Understanding the appropriateness and consequences of using sampling techniques
- h) Understanding and consider technical expert's opinions
- i) Audit a process from start to finish
- j) Verify the relevance and accuracy of collected information
- k) Confirm the audit evidence to support audit findings and conclusion
- l) Assess those factors that may affect the reliability of the audit findings
- m) Document audit activities and findings, and prepare reports
- n) Maintain the confidentiality and security of information

6.4. Personal attributes and behavior

6.4.1. Auditors at all levels should have the following personal attributes and behavior

- a) ethical, i.e. fair, truthful, sincere, honest and discreet;
- b) open-minded, i.e. willing to consider alternative ideas or points of view;
- c) diplomatic, i.e. tactful in dealing with people;
- d) observant, i.e. actively observing physical surroundings and activities;
- e) perceptive, i.e. aware of and able to understand situations;
- f) versatile, i.e. able to readily adapt to different situations;
- g) tenacious, i.e. persistent and focused on achieving objectives;
- h) decisive, i.e. able to reach timely conclusions based on logical reasoning and analysis;
- i) self-reliant, i.e. able to act and function independently whilst interacting effectively with others;
- j) acting with fortitude, i.e. able to act responsibly and ethically, even though these actions may not always be popular and may sometimes result in disagreement or confrontation;
- k) open to improvement, i.e. willing to learn from situations, and striving for better audit results;
- l) culturally sensitive, i.e. observant and respectful to the culture of the auditee;
- m) collaborative, i.e. effectively interacting with others, including audit team members and the auditee's personnel.
- n) healthy.

6.4.2. Auditors at all levels should work in accordance with the following principles:

- a) **Integrity:** the foundation of professionalism
Auditors should perform the work with honesty, diligence, and responsibility.
- b) **Fair presentation:** the obligation to report truthfully and accurately
Audit findings, audit conclusions and audit reports should reflect truthfully and accurately the audit activities. Significant obstacles encountered during the audit and unresolved diverging opinions between the audit team and the auditee should be reported.

- c) **Due professional care:** the application of diligence and judgement in auditing
Auditors should exercise due care in accordance with the importance of the task they perform and the confidence placed in them by the audit client and other interested parties. An important factor in carrying out their work with due professional care is having the ability to make reasoned judgements in all audit situations.
- d) Confidentiality: security of information
Auditors should exercise discretion in the use and protection of information acquired in the course of their duties.
- e) Independence: the basis for the impartiality of the audit and objectivity of the audit conclusions
Auditors should be independent of the activity being audited wherever practicable, and should in all cases act in a manner that is free from bias and conflict of interest. Auditors should maintain objectivity throughout the audit process to ensure that the audit findings and conclusions are based only on the audit evidence.
- f) Evidence-based approach: the rational method for reaching reliable and reproducible audit conclusions in a systematic audit process.
Audit evidence should be verifiable. It will in general be based on samples of the information available, since an audit is conducted during a finite period of time and with finite resources. An appropriate use of sampling should be applied, since this is closely related to the confidence that can be placed in the audit conclusions.
- g) Risk-based approach: an audit approach that consider risks and opportunities
The risk-based approach should substantively influence the planning, conducting and reporting of audits in order to ensure that audits are focused on matters that are significant for the audit client, and for achieving the audit programme objectives.

6.4.3. Understand HKICA01E "Regulations for Certification Scheme of Management System Auditors"

- a) Section 6 Obligations of Certified persons
- b) Section 9 Use of HKICA Certificate and Logo
- c) Knowledge in Prevention of Bribery Ordinance, Cap. 201 Chapter 9 particularly in corruption, acceptance of advantages and entertainment.



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7. AUDITING KNOWLEDGE AND TECHNIQUES EXAMINATION SYLLABUS

7.1. Testing and Calibration Laboratory Management System Audit

- 7.1.1. Master and apply the requirements of ISO 19011:2018 Clause 3, 4 and 6 and clause 5.4.2 and 5.4.4 to audits.
- 7.1.2. Master and apply the requirements of ISO 19011:2018 Appendix A to audits
- 7.1.3. Understand size, nature, complexity, products, services and processes of auditees, legal requirements, structure and outsourcing.
- 7.1.4. Master and apply the requirements of ISO/IEC 17021-1:2015 Section 9 to audits.
- 7.1.5. Business management practices
 - a) context of the organization
 - b) basic concept of business management, and relationship between policy, objectives and outcomes;
 - c) management processes and related terms.

7.2. Testing and Calibration Laboratory management system standards, professional knowledge and related application

- 7.2.1. Understand the Testing and Calibration Laboratory management system standards and other documents used and its application in conducting audits
- 7.2.2. Understand Testing and Calibration Laboratory management system standards and their interrelationship
- 7.2.3. Understand Clause 3 terms and definition of ~~ISO9000~~ and basic principle of Testing and Calibration Laboratory management system.

7.3. Testing and Calibration Laboratory management professional knowledge

- 7.3.1. The same requirements as clause 3.3. apply.

7.4. Personal attributes and behavior

- 7.4.1. The same requirements as clause 3.4. apply.

8. MANAGEMENT THEORY AND APPLICATION EXAMINATION SYLLABUS

8.1. Testing and Calibration Laboratory Management System Audit

8.1.1. The applicants should be competence and proficiency in application of the principles of Testing and Calibration Laboratory management system audits and related techniques. Comprehensive risk control and integrated evaluation should be demonstrated in conduct of audits.

8.1.2. Competence required to fulfill the audit planning and efficiency utilization of resources:

- a) to plan the audit and assign audit tasks to audit team members
- b) to discuss strategic issues with top management for their risks and opportunities
- c) to develop and maintain a collaborative working relationship among the audit team members
- d) to manage the audit process
- e) to represent the audit team in communications with the audit client and the auditee
- f) to lead the audit team to reach the audit conclusions
- g) to prepare and complete the audit report

8.2. Testing and Calibration Laboratory management system professional knowledge

8.2.1. Proficient and master Testing and Calibration Laboratory Management System tools, methods, techniques, such as: business improvement tools, probability and statistics, reliability, tools to evaluate performance characteristics, proficiency testing and interlaboratory study, Testing and Calibration Laboratory improvement, root cause analysis; risk management; problem-solving techniques; measurement process.

8.2.2. Master modern cutting-edge technology and dynamic Testing and Calibration Laboratory management.

8.3. Personal attributes and behavior

8.3.1. The same requirements as clause 3.4. apply.



Appendix 1 Examination Rules

Candidates should strictly abide by the following examination rules and consciously obey the arrangement of examination invigilators and should not for any reason to obstruct examination invigilators in performing their duties, not interrupt examination and examination workplace.

1. Examination rules

- 1.1. Candidates should be ethical, i.e. fair, truthful, sincere, honest and discreet ethics, honesty and mutual respect.
- 1.2. Candidates should bring proof of identity documents and other provisions, to take the examination at the specified time and place.
- 1.3. The candidate should be required to produce relevant documents to the invigilator, and follow the seat number in seating. Identity documents and other related documents should be placed on the designated location for verification.
- 1.4. Candidates should only bring blue or black pen for answering. They are forbidden to carry a variety of communication tools (such as mobile phones, computers and other wireless reception, transmission equipment, etc.), electronic storage memory recorders, other equipment and other unnecessary items into the examination room.
- 1.5. Candidates should clearly fill in their candidate number, code of identity number in the specified location in the answer book.
- 1.6. Candidates should use blue or black pen to answer. Red and other color pen or pencil is not allowed. Candidates should answer the questions on the answer book provided or into the computer. Candidates are not allowed to make any mark on the answer sheet.
- 1.7. Candidates in the examination room must be kept quiet. They are not allowed to smoke, not to make noise, not to whisper, not to look around, not to gesture, not to copy or intentionally allow others to copy, not to make private copies of answer or examination papers or writing paper. They are not allowed to pass stationery, supplies within the examination room.
- 1.8. Candidates must remain silent and seated in their place at the end of the examination until response materials have been collected and checked, and an announcement is made permitting students to leave the examination room.
- 1.9. The candidate must not take away any examination paper, writing paper, answer book or test standards provided for the examination out of the examination room.

2. Violation of examination rules

2.1. Candidates, who do not comply with the examination rules or not obey the following arrangements, are identified as misconduct:

- 2.1.1. carrying prohibited materials into the examination venue or not to place such materials at the specified location;
- 2.1.2. not to take the examination in the prescribed seats;
- 2.1.3. continue to answer before start or after signal of end of examination;
- 2.1.4. peep, whisper, give signal or gesture in the examination process;
- 2.1.5. make noise, smoke or other actions that would affect the implementation of the examination in the venue or other specified locations;
- 2.1.6. leave the examination room without permission of invigilator during the examination;
- 2.1.7. take away answer book, writing paper and test standard, etc. out of the examination room;
- 2.1.8. answer in pens not prohibited and to write the name, candidate number on locations other than specified or make any other marks on the answer paper;
- 2.1.9. other rules but not yet constitute cheating.

2.2. Candidates, who violate fairness and justice examination, improper means to obtain or attempt to obtain answers of questions, violate the following acts are identified as fraudulent examination:

- 2.2.1. carry prohibited materials or electronic equipment containing the examination content for the examination;
- 2.2.2. copy or assist others to copy answers or relevant information;
- 2.2.3. use of communication equipment during the examination;
- 2.2.4. take the examination by other person;
- 2.2.5. intentionally destroy examination paper, answer book or test materials;
- 2.2.6. give an identity code, candidate number not matching the original information;
- 2.2.7. receive or exchange materials or examination or answer paper;
- 2.2.8. do any other actions that are considered as cheating.

2.3. Candidates who violate the examination rules may be disqualified and the result of that particular examination will be cancelled. Candidates, who cheat, will be disqualified and the results of all the subjects taken within that particular examination will be invalid.



Hong Kong Institution of Certified Auditors

HKICA – CC10E Certification Criteria of Testing and Calibration
Laboratory Management System Auditors – Examination Syllabus

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Candidates, who disrupt the examination workplace order, reject or impede the examination staff to fulfill management responsibilities, will be terminated of their participation in the examination and results of that subject concerned will be invalid.

- 2.4. In case the candidate violating the rules or cheating is an existing certified person, his/her certification status will be handled in accordance with HKICA01E “Regulations for Certification Scheme of Management System Auditors” Chapter 6.