Hong Kong Association for Testing, Inspection and Certification Ltd.

Professional Certification Scheme for Testing Personnel

Interview for CTP
General

- Interview
  - No exemption
  - Apply only to CTP
  - Duration: normally 45 minutes (one category)
  - Additional sub-category or discipline: ~30 minutes

- Composition of the interview team
  - Convenor (CB/GC members or programm officer)
  - Examiner
General

Flow of interview
- Confirm identity (ID card)
- Brief self-introduction (< 5 minutes)
  - Working experience
  - Current post and major duties
  - Managerial role – team size
- Formal interview
General

- Three major areas
  - MANAGEMENT KNOWLEDGE
  - QUALITY KNOWLEDGE
  - TECHNICAL KNOWLEDGE

- Convenor responsible for
  - MANAGEMENT KNOWLEDGE
  - QUALITY KNOWLEDGE (ISO/IEC 17025)

- Examiner responsible for
  - TECHNICAL KNOWLEDGE
  - QUALITY KNOWLEDGE (Measurement Uncertainty and Quality control)
General

- MANAGEMENT KNOWLEDGE
- Customer services
- Supervisory skills
- Code of Ethics
Management

- Manager’s Basic Functions
- Time Management
- Communication in Your Workplace
- Team Building
- Delegation and Management of Generation Y
- Communication with customer, prevention of undue pressure
Code of Ethics

- Code of Ethics
- Prevention of Bribery Ordinance, Cap. 201
  - Corruption
  - Advantages
- Improper influence
- PCSTP01 “Regulations – Certification Scheme of Testing Personnel”
  - Code of ethics in general
  - Code of ethics in relation to employer
  - Code of ethics in relation to public
  - Obligation of Certified Testing Personnel
  - Use of Certification symbol and claim of certification status
Code of Ethics

- Code of conduct for testing industry
  - Use of company asset
  - Conflict of interest
  - Outside employment, etc.
  - Confidentiality and proprietary right, etc.
- Specific requirements for candidate applying for QUA
- Documentation of Code of conduct in meeting HKAS requirement for accredited laboratory
- Training requirements
Quality

- QUALITY KNOWLEDGE
- Laboratory management based on ISO/IEC 17025
- Measurement uncertainty
- Quality control
Quality

- Laboratory Management
  - Document control
  - Review of contract
  - Subcontracting
  - Verification of critical consumables e.g.
    - Reagent water, SPE, Acid used for digestion
  - Difference between correction and corrective actions and control of non-conforming work
  - Preventive actions
Quality

- Technical records – test result, standard preparation
- Laboratory layout in segregation of activities and prevention of contamination
- Traceability (acceptable reference materials)
- Traceability (equipment)
- Verification of in-house reference materials
- Sample identification and integrity within laboratory
- Quality assurance procedures and plan
Quality control (Food and Env)

In-process control and their functions
- Reagent blank
- Method blank
- Duplicate
- Laboratory control sample
- Spike

Statistical treatments of data (detailed knowledge) (All disciplines)
- Basic statistics such as student-t, pair-t, F test, normal distribution
- Establishment of control limit and precision criterion
- Construction of control chart and identification of out of control cases
Quality

- Statistical evaluation of interlaboratory data (QA)
  - Interpretation of PT results, different scores
  - Different statistical means in evaluation of interlaboratory data
  - Actions for unsatisfactory results
Quality – MU

- Estimation of Measurement Uncertainty
- Approaches: EURACHEM, VAM
- Factors affecting uncertainty
  - Recovery/bias
  - Precision (repeatability and intermediate precision)
  - Standard solution
  - End of measurement
- Approaches
  - Top down, bottom up and collaborative study
- Common problems
- Reporting of uncertainty and compliance
- Quality control and uncertainty
Technical

- TECHNICAL KNOWLEDGE
- Familiar with test/calibration procedures and their underlying principles?
- Aware of limitations?
- Aware of reporting requirements?
- Aware of calibration requirements?
Method verification and validation

- Difference between verification and validation
- Method performance characteristics for qualitative and quantitative tests
- Definitions and method for determination of the characteristics such as linearity, limit of detection/method detection limit, limit of quantitation/practical quantitation limit
- International guidelines for setting criteria of such characteristics for related discipline and HOKLAS supplementary Criteria
- Procedures for method verification/validation
- Validation report
- Drafting of test procedures
Food & Environmental

- Detailed knowledge of measurement techniques and test standards of general technique and applied sub-category for including
  - scope, limitations and principles
  - selection of methods, pros and cons of different techniques
  - reporting requirements

- Detailed knowledge of Hong Kong Food Regulations for applied sub-category (only for Food)
Food & Environmental

- Detailed knowledge of equipment for general and applied sub-category
  - calibration and performance check requirements
  - limitations and applications
  - maintenance
  - trouble shooting
Quality Assurance

- Technical (documentation of a quality management system) (detailed knowledge):
  - Documentation requirements as stipulated in ISO/IEC 17025
  - Assist in documentation and evaluate compliance of the procedures against ISO/IEC 17025
  - Implementation of a quality management system) (detailed knowledge)
Quality Assurance

- Equipment calibration (external) – knowledge
- Content of a calibration certificate
- Frequency and parameters for calibration of general pieces of equipment such as thermometer, thermohygrometer, thermocouple, balance, mass
- Review acceptability of results of calibration
- Safe handling, storage and use of reference standards
Certification Criteria

- Certification Handbook
- Phase I – 6 disciplines
- CC01 Chemical Testing
  - Elemental analysis
  - Organic analysis
- CC02 Construction Materials Testing
  - Building diagnostics tests
  - Construction materials tests
  - Foundation tests
  - Welding nondestructive tests
Certification Criteria

- CC03 Electrical Products Testing
  - Safety tests
  - Electromagnetic compatibility tests
  - Green tests

- CC04 Microbiological Testing
Certification Criteria

- CC05 Textiles and Garments Testing
  - Color fastness and care performance tests
  - Construction and physical performance
  - Fibre analysis
  - Flammability and safety tests

- CC06 Toys and Hardlines Testing
  - Toys and children’s products tests
  - Hardlines tests
Certification Criteria

- Phase II – 4 disciplines
- CC07 Calibration – no subcategory
- CC08 Environmental Testing
  - Inorganic
  - Organic
- CC09 Food Testing
  - Labelling
  - Contamination
- CC10 Quality Assurance – no subcategory and only for CTP
END OF SESSION
www.HKTIC.org
Thank you