American Society for Clinical Pathology
Board of Certification

SPECIALIST IN LABORATORY SAFETY, SLS(ASCP)

EXAMINATION CONTENT GUIDELINE

This document should serve as a useful guide for examination preparation. The Board of Certification criterion-referenced examinations are constructed to measure the competencies described in the Certification Levels Definitions. These competency statements are specified into task definitions, linked to each of the content outlines, and measured by the test items.

SPECIALIST LEVEL

Knowledge

The specialist has knowledge of advanced safety principles as well as the technical, procedural and research of laboratory safety. The specialist has knowledge of the structure and function of the organization, principles of management and education as well as the roles of other members of the health care team.

Technical Skills

- *Performs and establishes laboratory procedures for the specialty area.*

The specialist is able to perform all laboratory safety procedures and appropriate equipment maintenance in the specialty area. The specialist has the knowledge, ability and technical skill to research, develop, implement and evaluate new and existing methodologies.

Problem Solving and Analytical Decision Making

- *Develops and implements plans to correct and prevent problems.*

The specialist is capable of implementing and delegating decisions regarding laboratory operation and exercising independent judgment in problem solving. The specialist is able to anticipate and respond to unique situations regarding emergencies in a laboratory setting. The specialist can participate in policy decisions affecting laboratory performance or laboratory personnel in the specialty area.

Communication

- *Represents the specialty to the health care community and consumers.*

The specialist is able to communicate in depth with other health care personnel on the application and validity of laboratory data as well as the policies and operation of the specialty area. The specialist is capable of representing the specialty area to the community at large.

Teaching and Training Responsibilities

- *Designs and presents educational programs.*

The specialist has the ability to plan, implement, and evaluate effective educational programs and maintains technical competence.

Supervision and Management

- *Performs and directs administrative functions for the specialty area.*

The specialist is capable of planning, directing, controlling and evaluating the overall operation of the laboratory in the specialty area. Implicit is the capability to provide direct supervision of other personnel in that discipline.

THE EXAMINATION MODEL

The Board of Certification criterion-referenced examination model consists of three interrelated components:

COMPETENCY STATEMENTS describe the entry-level skills and tasks performed and measured on the examination.

CONTENT OUTLINE delineates general categories or subtest areas of the examination.

TAXONOMY levels describe the cognitive skills required to answer the question.

Level 1 - Recall:	Ability to recall or recognize previously learned (memorized) knowledge ranging from specific facts to complete theories.
Level 2 - Interpretive Skills:	Ability to utilize recalled knowledge to interpret or apply verbal, numeric or visual data.
Level 3 - Problem Solving:	Ability to utilize recalled knowledge and the interpretation/application of distinct criteria to resolve a problem or situation and/or make an appropriate decision.

EXAMINATION REPORTING MECHANISMS

After the examination has been administered and scored, a report is sent to the examinee. The Examinee Performance Report provides the scaled score on the total examination and pass/fail status for all candidates.

In addition, failing candidates receive scaled scores for each subtest (see content outline for subtests). This information may help the examinee identify areas of strengths and weaknesses in order to develop a study plan for future examinations. A total score of 400 is required to pass the examination.

COMPETENCY STATEMENTS

SPECIALIST IN LABORATORY SAFETY

In regard to Laboratory Operations and the performance of laboratory tests involving management, General Safety, Biohazard Control and Physical and Environmental Safety, the Specialist in Laboratory Safety:

APPLIES KNOWLEDGE OF

- principles of laboratory safety
- regulatory requirements
- theories and practice related to laboratory operations and management
- standard operating procedures
- theories and practice to clinical laboratory teaching and research and development

SELECTS APPROPRIATE SAFETY REQUIREMENTS BASED ON SAMPLE TYPE

PREPARES APPROPRIATE

- instruments and personal protective equipment
- controls and standards
- educational materials

ESTABLISHES

- procedures to facilitate laboratory accreditation
- procedural courses of action
- policies and procedures for laboratory operations and testing
- safety protocols

EVALUATES LABORATORY DATA TO

- recognize related health and disease states
- make identifications
- check for procedural/technical problems
- determine appropriate instrument adjustments
- take corrective action
- assure proper storage and disposal of chemicals
- assure proper storage and disposal of biological specimens
- recognize and report abnormal test results and/or the need for additional testing
- refine laboratory operational/testing procedures and policies
- assure personnel safety
- determine laboratory productivity and personnel performance
- assess new technology and scientific advancements for possible implementation
- measure the performance of clinical laboratory students

CONTENT OUTLINE

SPECIALIST IN LABORATORY SAFETY

Refer to the SLS Competency Statements for the competencies tested in each subtest.

I. MANAGEMENT (18-22%)
- A. Administrative
  - 1. Risk assessment/management
    - a. Planning
    - b. Quality control
  - 2. Medical surveillance
    - a. Employee evaluation
    - b. Exposure monitoring
  - 3. Emergency preparedness (e.g. bioterrorism/chemical warfare)
- B. Regulatory Agencies
  - 1. Federal (e.g. OSHA, CDC, DOT, FDA, EPA)
  - 2. Voluntary accreditation agencies (e.g. JCAHO, CAP)
  - 3. Other (e.g. ANSI)
- C. Safety Committee
- D. Training and Education

II. GENERAL SAFETY (18-22%)
- A. Ergonomics
- B. Fire Safety
  - 1. NFPA
  - 2. Extinguishers
  - 3. Initiating/responding to alarms
  - 4. Containment/barriers
  - 5. Evacuation procedures
- C. First Aid
  - 1. Breathing and circulation
  - 2. Burns
    - a. Chemical
    - b. Flame
  - 3. Bleeding
  - 4. Other injuries
  - 5. Accident reporting
- D. Office Safety
- E. Signs and Labels
  - 1. Warning
  - 2. NFPA
  - 3. Other (e.g. HMIS)

III. CHEMICAL SAFETY (18-22%)
- A. Chemical Classifications
  - 1. Carcinogen
  - 2. Corrosive
  - 3. Flammable
- B. CHO/CHP
  - 1. Inventory
  - 2. MSDS
- C. Compressed Gases
- D. Storage
- E. Radiation

IV. BIOHAZARD CONTROL (18-22%)
- A. Infection Control
- B. PPE
- C. Standard Precautions, Universal Precautions and Isolation

V. PHYSICAL AND ENVIRONMENTAL (18-22%)
- A. Electrical
- B. Equipment
  - 1. Ventilation
    - a. Hoods
    - b. Vents
    - c. HEPA filters
    - d. Isolation
  - 2. Biological safety cabinets (e.g. NSF49)
  - 3. Storage cabinets
  - 4. Centrifuges
- C. Spills and Clean-Up
- D. Disposal and Waste Management
- E. Shipping
- F. Disinfection and Decontamination

All Board of Certification examinations use conventional units for results and reference ranges.

Unless otherwise indicated, all regulations/standards refer to Federal guidelines.

END OF CONTENT GUIDELINE