



## Examination Format

The American Society for Clinical Pathology Board of Certification (ASCP BOC) QLS qualification examination is composed of 50 questions given in a 90-minute time frame. All examination questions are multiple-choice with one best answer. More information is available on the ASCP BOC website.

The examination questions may be both theoretical and/or procedural. Theoretical questions measure skills necessary to apply knowledge. Procedural questions measure skills necessary to perform laboratory safety techniques and follow quality assurance protocols.

Examinees should be aware that the QLS examination is based on **current best** practices, standards, and regulations, which are not always congruent with the actual practices of some laboratories.

## Examination Content Areas

The examination questions encompass the following content areas within laboratory safety. Each of these content areas comprises a specific percentage of the overall 50-question examination.

Content Area	Examination Percentage
Management	18 – 22%
General Safety	18 – 22%
Chemical Safety	18 – 22%
Biohazard Control	18 – 22%
Physical Environment	18 – 22%

## Examination Topic Outline

- Regulatory questions on the examination are based on U.S. sources (e.g., AABB, FDA, CLIA, etc.).
- The examples provided in this topic outline (as indicated by e.g.,) are not limited to those listed.

### I. Management

#### 18 – 22% of total examination

##### A. Administrative

- Risk assessment/management
  - Planning
    - Safety officer/committee
    - Standard operating procedures (SOPs)
    - Training, inspections, and outside contractors
  - OSHA terminology
    - Hierarchy of controls
    - Regulatory standards, performance standards, and official advisories (e.g., letters of interpretation)
    - General duty clause
  - Medical surveillance and employee evaluation
  - Emergencies, employee injuries, and exposures
    - Reporting requirements
    - Disaster planning
    - Staff training

##### B. Regulatory Agencies, Regulations, and Guidelines

- Federal (e.g., OSHA, EPA/RCRA, NRC, DOT, USPS, DHS, ADA, NIOSH, NIH)
- Other (e.g., NFPA, CLSI, CAP, TJC, COLA)



## II. General Safety

18 – 22% of total examination

### A. Ergonomics

1. Proper lifting technique
2. Repetitive motion injuries
3. Computer workstations
4. Noise

### B. Fire Safety

1. Response protocols
2. Classes of fire
  - a. NFPA graphic symbols
  - b. Extinguishing methods
3. Fire safety equipment
  - a. Fire alarms
  - b. Fire extinguishers (operation and contraindications)
  - c. Fire blankets

### C. Electrical Safety

1. Lockout/tagout, extension cords, and daisy chains
2. Accidents

### D. Compressed Gases

1. Labeling
2. Transport and storage
3. Cryogens (e.g., liquid nitrogen, dry ice)

### E. Radiation

1. Licensing, documentation, and management requirements
2. Handling, decontamination, and disposal

### F. Standard Work Practices

1. Safe work practices
2. Dress code
3. Personal protective equipment (PPE)
  - a. Face protection
  - b. Lab coats and aprons
  - c. Footwear and shoe covers
  - d. Gloves (e.g., latex, nitrile, vinyl, chemical-resistant, puncture-resistant)
  - e. Masks and respirators
  - f. Hand hygiene

### G. Spills and Exposures

## III. Chemical Safety

18 – 22% of total examination

### A. Chemical Classifications (e.g., corrosives, health hazards, physical hazards)

### B. Incompatible Mixtures

### C. Signs and Labels

1. Chemical labeling / Globally Harmonized System (GHS)
2. Other categories (e.g., NFPA/HMIS)

### D. Management

1. Chemical hygiene officer and chemical hygiene plan
2. Safety data sheets (SDS)
3. Storage/inventory
4. Chemical fume hood
5. Handling and disposal of chemicals
6. Chemical exposure monitoring (e.g., formaldehyde, xylene)

## IV. Biohazard Control

18 – 22% of total examination

### A. Infection Control

1. Risk assessment
2. Specimen handling (e.g., aerosols, high-risk specimens)
3. Biosafety cabinets (proper usage, maintenance, and selection of correct type)

### B. Protocols

1. Signs and labels
2. Biosafety levels
3. Agents of bioterrorism and the Laboratory Response Network
4. Infectious prions
5. Biohazard decontamination methods
6. CDC Universal Precautions, Standard Precautions, and Transmission-Based Precautions
7. Packing/shipping Category A and B substances

## V. Physical Environment

18 – 22% of total examination

### A. Equipment

1. General
  - a. Glassware and sharps
  - b. Centrifuge
  - c. Steam sterilizer (autoclave)
2. Ventilation
  - a. Biological safety cabinet
  - b. Air exchanges
  - c. Isolation
3. Safety equipment
  - a. Emergency communication
  - b. Showers and eyewashes
4. Storage cabinets

### B. Disinfection and Decontamination

### C. Disposal and Waste Management

1. Proper waste disposal
  - a. Labeling
  - b. Transport
2. Regulated medical waste
  - a. Biohazard waste
  - b. Sharps waste
3. Hazardous/chemical waste
  - a. Waste manifests
  - b. Licensed waste handlers
  - c. Waste generator categories
  - d. Waste storage locations

## END OF TOPIC OUTLINE