

## QUALIFICATION IN BIOREPOSITORY SCIENCE (QBRs)

### EXAMINATION TOPIC OUTLINE

The Qualification in Biorepository Science (QBRs) examination questions encompass different topics or content areas within Biorepository Science: Specimen Handling (Collection, Processing, and Storage); Sample/Data Inventory Management and Quality Control; Safety and Infection Control; and Biorepository Operations. Each of these content areas comprises a specific percentage of the overall 50-question qualification examination.

Exam questions may be both theoretical and/or procedural. Theoretical questions measure skills necessary to apply knowledge. Procedural questions measure skills necessary to perform biobanking techniques and follow quality assurance protocols. The content areas and percentages are described in detail below.

#### **I. Specimen Handling (Collection, Processing, and Storage) (25 – 30%)**

- A. Specimen Collection (e.g., blood, tissue, urine, swabs)
- B. Specimen Deidentification and Labeling
- C. Specimen Stabilization and Processing (e.g., centrifugation, aliquoting, cryopreservation)
- D. Timepoint Document (collection, processing, transport, storage)
- E. Specimen/Data Entry
- F. Communication with Collaborators
- G. Enhanced Technical Areas (e.g., histology, tissue microarray, slide imaging, microdissection, viable cell isolation, nucleic acid/protein extraction)
- H. Specimen Storage (e.g., time, temperature)

#### **II. Sample/Data Inventory Management and Quality Control (25 – 30%)**

- A. Sample/Data Chain of Custody
- B. Sample/Data Receipt, Inspection, and Verification
- C. Shipment
  - 1. Coordination
  - 2. Preparation
  - 3. Implementation
  - 4. Tracking/Follow-up
  - 5. Documentation
- D. Documentation
- E. Sample/Data Destruction
- F. Specimen Quality/Acceptability

#### **III. Safety and Infection Control (25 – 30%)**

- A. Subject
- B. Personal Protective Equipment (PPE)
- C. Laboratory/Hospital (e.g., fire, chemical/SDS, electrical, biological, radiation)
- D. Equipment (e.g., dry ice, liquid nitrogen, sharps)
- E. Risk Assessment and Management
- F. Disaster Preparedness
- G. Incident Reporting
- H. Hazardous Waste Disposal
  - 1. Biological
  - 2. Chemical

#### **IV. Biorepository Operations (15 – 20%)**

- A. Government and Non-Government Regulations and Guidelines
  - 1. Standard operating procedure (SOP) development and review
  - 2. Best practices (e.g., ISBER, NCI, GCP, IACUC, ISO9001, and ISO20387)
- B. Professionalism and Ethics
  - 1. Subject confidentiality
  - 2. Subject eligibility and informed consent
  - 3. Customer support and service
- C. Facilities, Equipment, and Supply Inventory
  - 1. Use and monitoring
  - 2. Quality control (validation, calibration)
  - 3. Maintenance

**Examples provided (as indicated by e.g.) are not limited to those listed.**

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

**END OF TOPIC OUTLINE**