

## Professional Certification in Biorisk Management - Examination Content, Sample Questions & References

The IFBA's Professional Certification (PC) in Biorisk Management identifies individuals with demonstrated competencies in the fundamental principles & practices of biorisk management. A valid PC in Biorisk Management is a pre-requisite certification required before candidates are eligible to apply for IFBA certification in additional technical disciplines. Candidates who are ready to apply for the Biorisk Management certification can apply at any time and take the examination – there are no specific eligibility requirements, pre-requisites, and time limits.

The PC in Biorisk Management is suited to a wide range of professionals working with and around biological materials in functions such as biorisk management & biosafety officers, laboratory scientists, technicians, researchers, facility operations & maintenance personnel, biocontainment design engineers & architects, educators, consultants and policy makers. Individuals holding this certification possess the knowledge and skills in sufficient degree to safely and securely manage biological risks in the laboratory and healthcare setting. The Body of Knowledge (BOK) below identifies 4 domains (topic areas) and 29 knowledge/task statements that define the competency for certification in Biorisk Management. The content of the examination is based on this BOK and each question on the examination is linked to one of the statements below.

### Domain A – Fundamentals of Biorisk Management Systems

1. List the goals of an effective biorisk management system;
2. Describe the fundamental elements of a biorisk management system;
3. Identify key factors in developing a successful biorisk management system;
4. Describe the fundamental role of risk assessment and risk management in implementing a biorisk management system;
5. Describe how to measure and monitor the performance of a biorisk management system; and,
6. Describe the process of the PDCA (Plan-Do-Check-Act) principle and provide examples of how PDCA can be applied to a biorisk management system.

### Domain B- CWA 15793 Laboratory Biorisk Management

7. Describe what the CWA 15793 is;
8. Define CWA 15793 terminology including biorisk, biosafety, biosecurity, and biorisk management system;
9. Identify the fundamental components of the CWA 15793;
10. Describe how the CWA 15793 can be used to establish, maintain, review and improve a biorisk management system; and,

11. Describe how national and local laws, regulations and guidelines can be used in conjunction with CWA 15793.

### Domain C – Implementing a Biorisk Management System

12. Describe how to evaluate biological hazards and determine risks;
13. Understand how to use information gathered from risk assessments to formulate site-specific risk mitigation procedures;
14. Understand how to develop and implement mitigation measures for biosafety and biosecurity risks;
15. Understand how to balance mitigation measures for biosafety and biosecurity risks;
16. Understand how to develop and implement “operational” , “facility” and “management” mitigation and control measures for biological risks;
17. Evaluate given examples of operational, facility and management mitigation and control measures and for each example, explain how the associated biological risk could be reduced;
18. Understand how to identify and address non-conformities with biorisk management systems;
19. Describe how to use performance indicators and data generated from accident/incident investigations, inspections & auditing to monitor and improve a biorisk management system;
20. Describe how to establish emergency response procedures;
21. Describe how to establish and implement personnel training, awareness and competence requirements and procedures;
22. Describe how to develop materials for the communication of relevant biorisk information; and,
23. Describe how to control and maintain records, documents and data relevant to the biorisk management system.

### Domain D – Roles and Responsibilities for Biorisk Management

24. Identify individuals responsible for managing biological risks within an organization;
25. Describe the roles, responsibilities and importance of top management, senior management and scientific management;
26. Describe the role and operation of a biorisk management committee;
27. Describe the role and responsibilities of biorisk management advisor/officer;
28. Identify individuals responsible for, and describe their respective roles for, monitoring performance and improving the biorisk management system; and,
29. Explain how each of the following roles interacts with and influences biorisk management within an institution: security staff, animal care staff, operations and maintenance staff.

The following represents the percentage of questions in each domain that are included in the examination:

<b>Exam Blueprint Professional Certification in Biorisk Management Passing Score – 74%</b>	
<b>Domain</b>	<b>Number of Questions</b>
A) Fundamentals of Biorisk Management Systems	18
B) CWA 15793 Laboratory Biorisk Management	16
C) Implementing a Biorisk Management System	42
D) Biorisk Management Roles & Responsibilities	24

In order to familiarize candidates with the nature and form of the examination questions, the following are provided as examples. An asterisk marks the correct answer.

1. The objective of the CEN Workshop Agreement 15793 Laboratory Biorisk Management is to
  - a) instruct individuals how to classify biological agents into risk groups.
  - b) outline the legally-binding mandatory requirements for managing biological risks.
  - c) describe the components of a performance-based approach to managing biological risks.\*
  - d) define the requirements for certifying laboratories to Biosafety Levels 2 and 3.
2. The risk assessment process is used to
  - a) determine what measures should be put in place that are proportionate with the risks involved with the work.\*
  - b) define how much funding is needed to implement a biorisk management program.
  - c) outline the roles the responsibilities of individuals within the facility for managing biological risks.
  - d) measure the effectiveness of personal protective equipment and other safety equipment.
3. Which of the following control measures would provide the BEST protection for an employee handling a biological agent that is easily transmitted by the aerosol route?
  - a) Washing hands and disinfecting benchtops.
  - b) Working in biological safety cabinet and using sealed centrifuge cups.\*
  - c) Washing hands and using sealed centrifuge cups.
  - d) Working in a biological safety cabinet and disinfecting benchtops.

4. One of the roles of a biorisk management officer is to
- ensure sufficient resources are provided to safely work with biological agents.
  - discipline employees who refuse to wear protective equipment and follow safety practices.
  - conduct background checks on employees to ensure they are suitable for working with biological agents.
  - provide guidance on the development of biorisk management procedures.\*

Some suggested preparation for examination might include, but should not be limited to, the following resources:

- Laboratory Biorisk Management. CEN Workshop Agreement 15793. January 2011.
- Laboratory Biorisk Management - Guidelines for the Implementation of CWA 15793. CEN Workshop Agreement 16393. January 2012.
- Laboratory Biosafety Manual. World Health Organization. 2004
- Biorisk Management – Laboratory Biosecurity Guidance. World Health Organization. 2006

*(All of these resources and others are available for download on the IFBA website at [www.internationalbiosafety.org](http://www.internationalbiosafety.org))*