

Clinical Bacteriology: Safety and Quality Assurance

Clinical Bacteriology · Practice Test · 15 Questions

1. What is the primary aim of biosecurity in a laboratory?

- A) Prevent accidental exposure
- B) Prevent misuse of biological materials
- C) Sterilize laboratory equipment
- D) Increase diagnostic capacity

2. Which category of bioterrorism agents includes Anthrax and Smallpox?

- A) Category A
- B) Category B
- C) Category C
- D) Category D

3. What is the standard precaution for handling blood and body fluids?

- A) Assume all are safe
- B) Treat all as potentially infectious
- C) Only test high-risk patients
- D) Use PPE only for visible spills

4. Which Class of Biological Safety Cabinet (BSC) provides the highest level of protection using a leak-proof design?

- A) Class I
- B) Class IIA
- C) Class IIB
- D) Class III

5. What is the biological indicator used to monitor the effectiveness of an autoclave?

- A) *Bacillus subtilis*
- B) *Bacillus pumilus*
- C) *Geobacillus stearothermophilus*
- D) *Bacillus atrophaeus*

6. What is the mechanism of action for moist heat sterilization?

- A) Oxidation
- B) Denaturation and coagulation of proteins
- C) Disruption of lipid membrane
- D) DNA damage

7. Which sterilization method is considered the safest for burning hazardous materials to ashes?

- A) Autoclaving
- B) Incineration
- C) Dry oven
- D) Tyndallization

8. What is the recommended concentration of ethyl or isopropyl alcohol for effective disinfection?

- A) 20-30%
- B) 40-50%
- C) 60-90%
- D) 95-100%

9. What is the required minimum passing score in a Proficiency Testing (PT) program to maintain a laboratory license?

- A) 70%
- B) 75%
- C) 80%
- D) 90%

10. Which organism is used as a control for Gram-negative staining?

- A) *Staphylococcus aureus*
- B) *Escherichia coli*
- C) *Bacillus subtilis*
- D) *Yersinia pestis*

11. How often should Gram stain controls be performed?

- A) Weekly
- B) Monthly
- C) Daily
- D) Yearly

12. What is the purpose of Tyndallization?

- A) Sterilize heat-stable objects
- B) Sterilize heat-labile substances
- C) Disinfect surfaces
- D) Kill prions

13. Which chemical agent is commonly used to disinfect BSCs?

- A) Formaldehyde gas
- B) Silver nitrate
- C) Mercury
- D) Chlorhexidine

14. Which BSL level requires a full body, air-supplied positive pressure personnel suit?

- A) BSL-1
- B) BSL-2
- C) BSL-3
- D) BSL-4

15. What is the primary method to remove microbes from heat-sensitive liquids?

- A) Filtration
- B) Boiling
- C) Incineration
- D) Radiation