

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

- 1) When a microbiologist reads a slide with Gram-stained bacteria, he or she can thank 1) \_\_\_\_\_  
A) Hans Christian Gram.  
B) Antoni Leeuwenhoek.  
C) Louis Pasteur.  
D) both A and B.  
E) both B and C.

Answer: D  
Diff: 1 Type: MC

- 2) Pasteur's work on the germ theory of fermentation led to the development of the technique known as 2) \_\_\_\_\_  
A) pasteurization. B) antiseptis.  
C) sterilization. D) crystallographics.

Answer: A  
Diff: 1 Type: MC

- 3) The germ theory of disease states that 3) \_\_\_\_\_  
A) the same organism must be found in all cases of a given disease.  
B) a specific infectious disease is caused by a specific type of microorganism.  
C) organisms from pure culture must reproduce the disease in a susceptible animal.  
D) a specific microbe produces a specific change in the substance on which it grows.

Answer: B  
Diff: 1 Type: MC

- 4) One of Koch's contributions to microbiology can still be seen today in the 4) \_\_\_\_\_  
A) use of vaccines. B) use of agar for cultures.  
C) antibiotic penicillin. D) microscope.

Answer: B  
Diff: 2 Type: MC

- 5) Walter Reed probably made use of \_\_\_\_\_ in his study of yellow fever. 5) \_\_\_\_\_  
A) the germ theory of disease B) the spontaneous generation theory  
C) Koch's postulates D) the germ theory of fermentation

Answer: A  
Diff: 2 Type: MC

- 6) Pasteur's work included 6) \_\_\_\_\_  
A) performing the first vaccination.  
B) developing solid medium for the growth of bacteria.  
C) creating stains to visualize bacteria.  
D) heating liquids to destroy bacteria.

Answer: D  
Diff: 1 Type: MC

7) Pasteur's germ theory of disease formed the basis for \_\_\_\_\_  
A) vaccination. B) asepsis and sterilization.  
C) chemotherapy. D) molecular biology.

Answer: B  
Diff: 1 Type: MC

8) Select the historical science figure and the field of contribution combination that is *inaccurate*. \_\_\_\_\_  
A) Mullis — virology B) Semmelweis — infection control  
C) Jenner — immunology D) Ehrlich — chemotherapy

Answer: A  
Diff: 1 Type: MC

9) What organism helped Fleming in his discovery of penicillin? \_\_\_\_\_  
A) *Bacillus anthracis* B) *Streptococcus pyogenes*  
C) *Staphylococcus* spp. D) *Mycobacterium tuberculosis*

Answer: C  
Diff: 1 Type: MC

10) The scientist who improved the stain used for observing the tubercle bacilli by using their acid-fast property is \_\_\_\_\_  
A) Jenner. B) Fleming. C) Ehrlich. D) Koch.

Answer: C  
Diff: 1 Type: MC

11) When a child receives the attenuated measles vaccine, what historical science figure(s) contributed to its success? \_\_\_\_\_  
A) Pasteur  
B) Jenner  
C) Ehrlich  
D) Both A and B  
E) All of the above

Answer: D  
Diff: 1 Type: MC

12) Which of the following organisms does not meet Koch's postulates? \_\_\_\_\_  
A) *Vibrio cholerae* B) *Mycobacterium leprae*  
C) *Bacillus anthracis* D) *Yersinia pestis*

Answer: B  
Diff: 3 Type: MC

13) Lister contributed to modern day infection control by \_\_\_\_\_  
A) his discovery of penicillin.  
B) promoting hand washing between patients.  
C) using nets to prevent mosquito bites.  
D) using carbolic acid for sterilization.

Answer: D  
Diff: 1 Type: MC

14) Which of the following recent advancements has dramatically challenged Koch's postulates?

- A) The electron microscope
- C) Molecular diagnostics

- B) Improved culture techniques
- D) Serological assays

14) \_\_\_\_\_

Answer: C

Diff: 3 Type: MC

## Answer Key

Testname: CH1

- 1) D  
Diff: 1 Page Ref:  
Topic:
- 2) A  
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Topic:
- 3) B  
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- 4) B  
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Topic:
- 5) A  
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- 6) D  
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Topic:
- 7) B  
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- 8) A  
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- 9) C  
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- 10) C  
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Topic:
- 11) D  
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Topic:
- 12) B  
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Topic:
- 13) D  
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- 14) C  
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