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Microbiology with Diseases by Body System, 6e (Bauman)
Chapter 1 A Brief History of Microbiology

1.1 Multiple Choice Questions

- 1) Antoni van Leeuwenhoek was the first person in history to
- A) use a magnifying glass.
 - B) develop a taxonomic system.
 - C) view microorganisms and record these observations.
 - D) disprove spontaneous generation.
 - E) use the germ theory of disease.

Answer: C

Bloom's Taxonomy: Knowledge

Section: The Early Years of Microbiology

Learning Outcome: 1.1

- 2) The microbes commonly known as _____ are single-celled eukaryotes that are generally motile.

- A) archaea
- B) bacteria
- C) fungi
- D) protozoa
- E) viruses

Answer: D

Bloom's Taxonomy: Comprehension

Section: The Early Years of Microbiology

Learning Outcome: 1.3

- 3) Which of the following are prokaryotes?

- A) algae
- B) molds
- C) protozoa
- D) archaea
- E) worms

Answer: D

Bloom's Taxonomy: Comprehension

Section: The Early Years of Microbiology

Learning Outcome: 1.5

4) Louis Pasteur demonstrated that fermentation to produce alcohol is caused by

- A) aerobes.
- B) facultative anaerobes.
- C) obligate parasites.
- D) archaea.
- E) prokaryotes.

Answer: B

Bloom's Taxonomy: Knowledge

Section: The Golden Age of Microbiology

Learning Outcome: 1.6

5) Which of the following scientists provided evidence in favor of the concept of spontaneous generation?

- A) Pasteur
- B) Needham
- C) Redi
- D) Buchner
- E) Spallanzani

Answer: B

Bloom's Taxonomy: Knowledge

Section: The Golden Age of Microbiology

Learning Outcome: 1.7

6) Pasteur's experiments on fermentation laid the foundation for

- A) industrial microbiology.
- B) epidemiology.
- C) immunology.
- D) abiogenesis.
- E) antisepsis.

Answer: A

Bloom's Taxonomy: Comprehension

Section: The Golden Age of Microbiology

Learning Outcome: 1.10

7) Which of the following statements about fungi is FALSE?

- A) Fungi are eukaryotes.
- B) Molds are multicellular.
- C) Fungi have a cell wall.
- D) Fungi are photosynthetic.
- E) Yeasts are unicellular.

Answer: D

Bloom's Taxonomy: Comprehension

Section: The Early Years of Microbiology

Learning Outcome: 1.3

8) Which of the following contribute to the successful application of Koch's postulates?

- A) the development of the compound microscope
- B) the theory of abiogenesis
- C) the ability to record the appearance of bacteria photographically
- D) the development of simple bacterial staining techniques
- E) the development of techniques for sterile transfer of bacteria

Answer: E

Bloom's Taxonomy: Application

Section: The Golden Age of Microbiology

Learning Outcome: 1.13

9) Which of the following individuals pioneered the use of chemicals to reduce the incidence of infections during surgery?

- A) Nightingale
- B) Snow
- C) Ehrlich
- D) Lister
- E) Semmelweis

Answer: D

Bloom's Taxonomy: Comprehension

Section: The Golden Age of Microbiology

Learning Outcome: 1.16

10) The technique developed by Hans Christian Gram is important for bacterial

- A) etiology.
- B) identification.
- C) classification.
- D) isolation.
- E) epidemiology.

Answer: B

Bloom's Taxonomy: Knowledge

Section: The Golden Age of Microbiology

Learning Outcome: 1.15

11) The use of chemical agents to harm or kill microbes is

- A) immunology.
- B) chemotherapy.
- C) epidemiology.
- D) serology.
- E) biotechnology.

Answer: B

Bloom's Taxonomy: Knowledge

Section: The Golden Age of Microbiology

Learning Outcome: 1.18

12) Parasitic worms, even meters-long tapeworms, are studied in microbiology because

- A) they are parasites.
- B) diagnosis usually involves microscopic examination of patient samples.
- C) the Gram stain can be used to identify them.
- D) Leeuwenhoek first discovered them.
- E) no one else wants to study them.

Answer: B

Bloom's Taxonomy: Comprehension

Section: The Early Years of Microbiology

Learning Outcome: 1.4

13) Which of the following areas of investigation is considered a major driver of modern microbiology?

- A) microbial classification
- B) industrial microbiology
- C) the etiology of infectious disease
- D) genetics
- E) food preparation

Answer: D

Bloom's Taxonomy: Comprehension

Section: The Modern Age of Microbiology

Learning Outcome: 1.19

14) Work by _____ laid the foundations of immunology with the development of vaccines.

- A) Redi and Spallanzani
- B) Koch and Pasteur
- C) Jenner and Pasteur
- D) Lister and Semmelweis
- E) Pauling and Woese

Answer: C

Bloom's Taxonomy: Comprehension

Section: The Golden Age of Microbiology

Learning Outcome: 1.17

15) According to Kluver and van Niel, which of the following are TRUE of basic biochemical reactions?

- A) They vary widely among living things.
- B) There are an unlimited number of them.
- C) They all require energy input.
- D) Basic biochemical reactions of life primarily involve transfer of electrons and hydrogen ions.
- E) They primarily involve transfers of chemical groups.

Answer: D

Bloom's Taxonomy: Application

Section: The Modern Age of Microbiology

Learning Outcome: 1.19

16) Semmelweis advocated handwashing as a method of preventing which of the following diseases?

- A) cholera
- B) puerperal fever
- C) smallpox
- D) anthrax
- E) syphilis

Answer: B

Bloom's Taxonomy: Application

Section: The Golden Age of Microbiology

Learning Outcome: 1.16

17) Paul Ehrlich used chemotherapy to treat

- A) cholera.
- B) cancer.
- C) anthrax.
- D) smallpox.
- E) syphilis.

Answer: E

Bloom's Taxonomy: Comprehension

Section: The Golden Age of Microbiology

Learning Outcome: 1.18

18) Which of the following is NOT a characteristic of viruses?

- A) They are visible with a light microscope.
- B) They are acellular.
- C) They are composed of genetic material and protein.
- D) They are typically smaller than prokaryotic cells.
- E) They are obligatory parasites.

Answer: A

Bloom's Taxonomy: Comprehension

Section: The Early Years of Microbiology

Learning Outcome: 1.3

19) The first true vaccine protected against disease caused by a(n) _____ pathogen.

- A) bacterial
- B) protozoal
- C) fungal
- D) viral
- E) archaeal

Answer: D

Bloom's Taxonomy: Application

Section: The Golden Age of Microbiology

Learning Outcome: 1.17