TEST BANK

Nester's Microbiology

A Human Perspective

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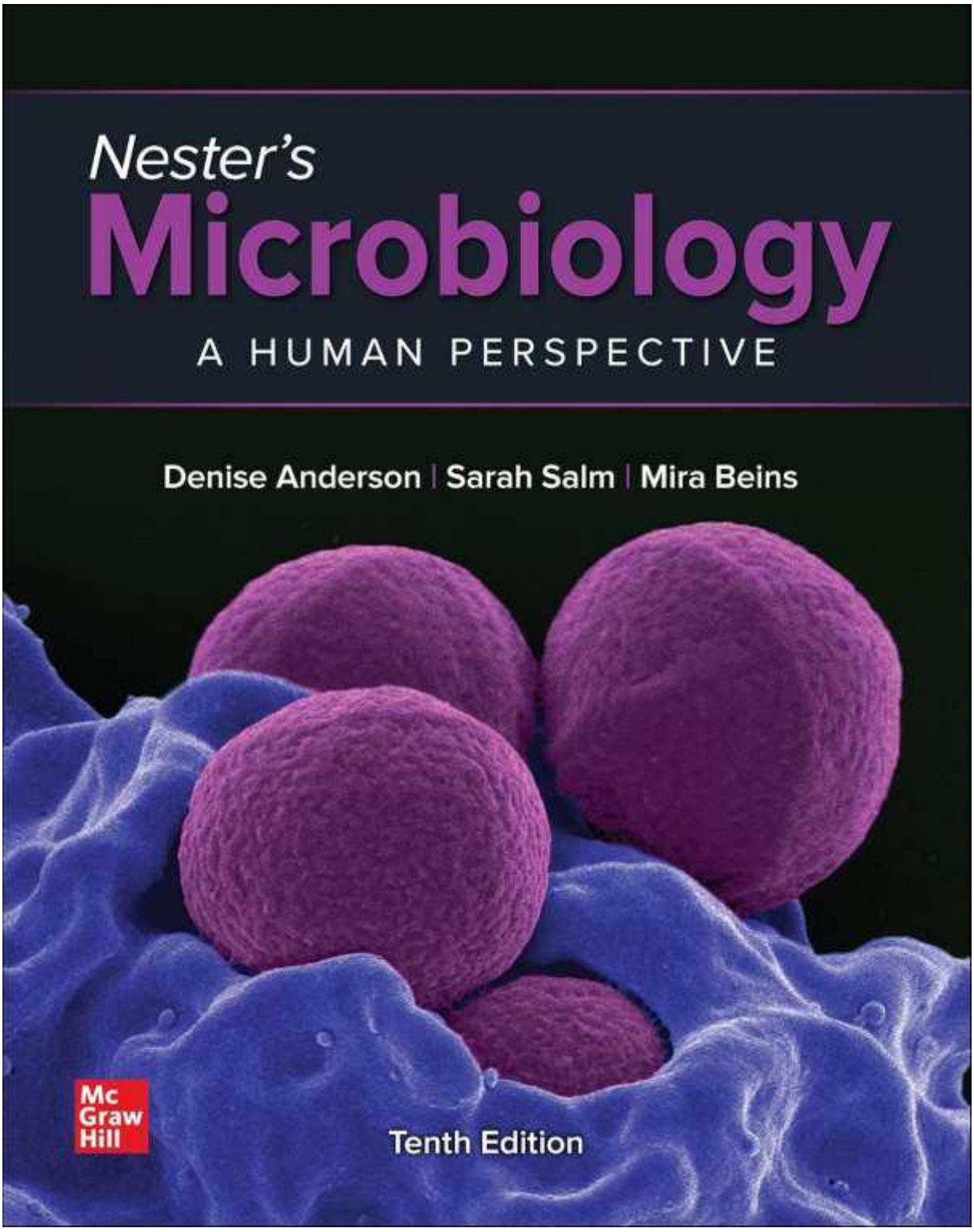
10th Edition



TRUE/FALSE - Write 'T' if the statement is true and 'F' if the statement is false.

1) Spontaneous generation refers to the idea that organisms came from other organisms.

◎ true

◎ false

2) The human body only contains bacteria during illness.

◎ true

◎ false

3) Bacteria and eukarya both contain membrane-bound organelles.

◎ true

◎ false

4) The scientific name of an organism indicates its domain.

◎ true

◎ false

5) Viroids are naked (lacking a protein shell) pieces of RNA that infect plants.

◎ true

◎ false

6) Viruses simultaneously contain DNA, RNA, and protein.

◎ true

◎ false

7) Viruses, viroids, and prions are obligate intracellular agents.

◎ true

◎ false

8) Viruses and bacteria are both unicellular.

◎ true

◎ false

9) An organism is categorized in a domain according to its cell size.

◎ true

◎ false

10) Archaea are very similar to bacteria and have rigid cell walls made of peptidoglycan.

◎ true

◎ false

11) *Thiomargarita namibiensis* cannot be a eukaryote because it is only 1 mm in width.

◎ true

◎ false

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

12) The scientist usually credited with seeing the first microorganisms, which he called "animalcules", was _____.

A) Redi
B) van Leeuwenhoek
C) Pasteur
D) Tyndall
E) Lister

13) The word "animalcule" was first used by _____.

A) Pasteur
B) Redi
C) van Leeuwenhoek
D) Tyndall
E) Hooke

14) The idea of spontaneous generation postulated that

A) organisms could evolve into the next generation of organisms.
B) organisms could spontaneously turn into other types of organisms.
C) living organisms could spontaneously arise from non-living material.
D) living organisms could spontaneously arise from other living organisms.
E) living organisms must contain at least ten cells.

15) Which of these scientists were involved in investigating the idea of spontaneous generation?

A) Redi and van Leeuwenhoek

B) Redi and Pasteur

C) van Leeuwenhoek and Pasteur

D) Pasteur and Escherich

E) Escherich and Redi

16) The work of Tyndall and Cohn

A) supported the idea of spontaneous generation rather than the idea of biogenesis.

B) explained why some spontaneous generation investigators got different results from those of Pasteur.

C) showed that all microbes caused spontaneous disease if they enter the human body.

D) allowed scientists to see microorganisms (called "animalcules") using a simple microscope.

E) showed that boiling fails to kill vegetative bacteria, leading to biogenesis.

17) The structures present in the hay infusions used in experiments on spontaneous generation that made them difficult to sterilize are _____.

A) chloroplasts

B) endospores

C) organelles

D) toxins

E) nuclei

18) The contradictory results obtained by different scientists apparently doing the same experiments in investigating spontaneous generation

A) show that doing experiments once should be enough to prove something.
B) show the importance of exactly duplicating experimental conditions.
C) led to further experiments that ultimately proved spontaneous generation.
D) could not be explained by anyone involved in the work.
E) led to the development and production of swan-necked flasks.

19) If Pasteur had done his experiments investigating spontaneous generation in a horse stable,

A) the results would probably have supported the idea of spontaneous generation.
B) the results would probably not have supported the idea of spontaneous generation.
C) the results would probably been the same as those obtained in a laboratory.
D) the results would probablyhave supported the idea of spontaneous biogenesis.
E) it would probably have taken several years to obtain any results.

20) Cellulose is a major component of plants and is only directly digested by

A) carnivores.
B) termites.
C) herbivores.
D) microorganisms.
E) birds.

21) Plants are dependent on microorganisms for

A) providing oxygen in a usable form.
B) providing water and carbon dioxide.
C) changing atmospheric nitrogen to a usable form.
D) providing simplecarbohydrates in a usable form.
E) providing simple and complex proteins.

22) Microorganisms are useful for all of the following EXCEPT

A) causing disease.
B) curing/treating disease.
C) preparing food.
D) cleaning up pollutants.
E) scientific research.

23) Bacteria have been used to help produce or modify all of the following food products EXCEPT

A) cheeses.
B) beer and wine.
C) pickled products.
D) bread.
E) peanuts.

24) Microorganisms areinvolved in all of the following EXCEPT

A) production of medicinal products.

B) food production.

C) pollution cleanup.

D) converting nitrogen to a form useful to plants.

E) There are no exceptions here. There are microorganisms that participate in each of these activities.

25) Bioremediation refers to

A) rehabilitating wayward pathogenic bacteria.

B) using bacteria to clean up environmental pollutants.

C) development of new vaccines.

D) monitoring newly discovered disease organisms.

E) destroying organisms causing infectious diseases.

26) Which of the following about the Golden Age of Medical Microbiology is FALSE?

A) It started with the development of the first microscopes.

B) It occurred during the late 1800s to the early 1900s.

C) It is a time when the knowledge of bacteria and work with them expanded.

D) It was the time when people realized that diseases could be caused by invisible agents.

E) It was a time when several major advances were made in microbiology.

27) Which of the following statements about newly emerging or reemerging diseases is FALSE?

A) They may be caused by changing lifestyles.
B) Examples include hepatitis C, Ebola disease and COVID-19.
C) They may result from a breakdown in sanitation and social order.
D) They are all caused by drug-resistant pathogens.
E) They may result when microbes evolve and develop new characteristics.

28) Lyme disease is an example of a disease that is due to

A) increased interaction between humans and tick-carrying animals.
B) failure to effectively vaccinate children.
C) a mutation in the human genome.
D) climate change leading to a significantly greater mosquito population.
E) an increase in the number of people travelling to Asia and Africa.

29) The outbreak of measles within the last few years is due to

A) mutation of the measles virus.
B) change in the environment and climate.
C) a decline in vaccination of children in the previous years.
D) increase in sensitivity of detection techniques.
E) emergence of novel measles viruses.

30) Which of the statements regarding smallpox is TRUE?

A) Smallpox has been eliminated as a naturally occurring infection in human beings through vaccination.

B) Smallpox still occasionally occurs in developing countries though failure to vaccinate everyone.

C) Smallpox outbreaks sometimes occur in chimpanzee populations but seldom kills the animals.

D) Smallpox outbreaks sometimes occur in chimpanzee populations and kills all the animals affected.

E) Smallpox continues to be a common, naturally occurring infection in human beings.

31) Smallpox

A) has occurred in a few countries since 1977.

B) has little potential as a weapon of bioterrorism.

C) has not occurredanywhere in the word since 1977.

D) very seldom kills people, but does scar them.

E) is an emerging infectious disease.

32) Ulcers, previously thought to be caused by stress, are in fact often caused by

A) a bacterial infection.

B) an insufficient diet.

C) a genetic mutation.

D) a fungal pathogen.

E) a viral infection.

33) Bacteria are useful to study because

A) they produce protein in a simpler manner than more complex organisms.

B) they have the same fundamental metabolic and genetic properties as higher organisms.

C) they produce energy in a simpler manner than more complex organisms.

D) they both synthesize and are resistant to all known antibiotics.

E) they produce peptidoglycan in a simpler manner than more complex organisms.

34) Which of the following regarding normal microbiota is TRUE?

A) Normal microbiota are only found in the lungs or digestive tract.

B) Normal microbiota protect us from disease by competing with pathogenicbacteria.

C) Normal microbiota are only found on small select parts of the human body.

D) Normal microbiota typically cause disease when growing in or on our bodies.

E) Normal microbiota play little or no role in the general health of humans.

35) Bacteria are present on the body

A) only during disease-causing infections.

B) at all times.

C) only in certain areas.

D) only after intense exercise.

E) only after using public transport.

36) Bacteria are good research models because they

A) vary in size from microscopic to macroscopic.
B) share manyproperties with more complex organisms.
C) can be assembled into complex multicellular organisms.
D) have similarly complicated growth requirements.
E) develop the same diseases as humans and animals.

37) Select the FALSE statement regarding bacteria.

A) They are usually rod, sphere, or spiral in shape.
B) They reproduce by binary fission.
C) They contain a peptidoglycan cell wall.
D) They are found as single cells.
E) They are never photosynthetic.

38) Which is usually NOT true of archaea?

A) They move using flagella.
B) They reproduce by mitosis.
C) They contain rigid cell walls.
D) They are found as single cells.
E) They are prokaryotes.

39) All of the statements regarding archaea are true EXCEPT