Biodiversity and Classification of Microorganisms

Biology · Practice Test · 24 Questions

1. What is a primary concept related to the variety of life on Earth, including microorganisms?

A) Nucleus structure
B) Biodiversity
C) Symbiotic relationships
D) Immunity

2. Which term describes organisms that can only be seen with a microscope?

A) Macroscopic organisms
B) Microorganisms
C) Eukaryotes
D) Prokaryotes

3. What are the two main categories of cells based on their internal structure?

A) Virus and Bacteria
B) Protista and Fungi
C) Prokaryote and Eukaryote
D) Natural and Acquired

4. Which of the following is NOT a group of microorganisms with basic structures and general characteristics discussed?

A) Virus
B) Protista
C) Mammals
D) Fungi

5. What is a key role of microorganisms in the environment?

A) Causing diseases
B) Maintaining balance
C) Destroying ecosystems
D) Increasing pollution

6. What type of symbiotic relationship involves bacteria that convert atmospheric nitrogen into a usable form for plants?

A) Parasitism
B) Commensalism
C) Nitrogen fixing bacteria
D) Mutualism

7. E. coli is an example of a microorganism often discussed in the context of symbiotic relationships and its effects.

A) True
B) False
C) Partially true
D) Cannot be determined

8. What is the body's defense system against pathogens called?

A) Classification
B) Biodiversity
C) Immunity
D) Nucleus structure

9. Which type of immunity is present from birth?

A) Acquired immunity
B) Artificial immunity
C) Natural immunity
D) Passive immunity

10. Immunity developed after exposure to a pathogen or through vaccination is known as:

A) Natural immunity
B) Innate immunity
C) Acquired immunity
D) Herd immunity

11. What is a characteristic of prokaryotic cells?

A) Presence of a nucleus
B) Membrane-bound organelles
C) Lack of a nucleus
D) Complex structure

12. Eukaryotic cells are generally characterized by:

A) Simplicity
B) Absence of organelles
C) Presence of a nucleus
D) Lack of DNA

13. Viruses are considered microorganisms, but they differ from bacteria in that they:

A) Are always beneficial
B) Can reproduce independently
C) Require a host cell to replicate
D) Are always multicellular

14. Bacteria are single-celled organisms that:

A) Are always pathogenic
B) Lack a cell wall
C) Can be autotrophic or heterotrophic
D) Are only found in extreme environments

15. Protista is a diverse kingdom that includes:

A) Only multicellular organisms
B) Only plant-like organisms
C) Unicellular or simple multicellular eukaryotes
D) Only bacteria

16. Fungi are characterized by their ability to:

A) Perform photosynthesis
B) Absorb nutrients from their environment
C) Produce their own food internally
D) Move actively using flagella

17. What is a potential effect of microorganisms on human health, requiring management?

A) Nitrogen fixation
B) Disease
C) Decomposition
D) Nutrient cycling

18. The study material mentions revising the structure of which cellular component?

A) Cell wall
B) Ribosome
C) Nucleus
D) Mitochondria

19. Which of the following is an example of a symbiotic relationship where one organism benefits and the other is harmed?

A) Nitrogen fixation
B) E. coli in the human gut
C) Parasitism
D) Decomposition

20. Plants exhibit their own defense mechanisms against pathogens, known as:

A) Antibiotic resistance
B) Immune response
C) Symbiosis
D) Biodiversity

21. Microorganisms play a crucial role in decomposition, breaking down dead organic matter.

A) True
B) False
C) Sometimes
D) Only in aquatic environments

22. A relationship where both organisms benefit from the interaction is called:

A) Parasitism
B) Commensalism
C) Mutualism
D) Predation

23. Which group of microorganisms is known for its chitinous cell walls?

A) Bacteria
B) Viruses
C) Protista
D) Fungi

24. The study of the variety of life forms, including microorganisms, is termed:

A) Microbiology
B) Ecology
C) Biodiversity
D) Genetics