

# Biodiversity and Classification of Microorganisms

Biology · Answer Key · 24 Questions

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**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