

Microbiology Fundamentals

Microbiology · Answer Key · 10 Questions

1. Which structure is responsible for the motility of many bacteria?

- A) Ribosome
- B) Flagellum**
- C) Capsule
- D) Nucleoid

2. What is the primary component of the bacterial cell wall that provides structural integrity?

- A) Cellulose
- B) Chitin
- C) Peptidoglycan**
- D) Lipid bilayer

3. Which scientist is credited with the discovery of penicillin in 1928?

- A) Louis Pasteur
- B) Robert Koch
- C) Alexander Fleming**
- D) Joseph Lister

4. What shape describes a bacterium categorized as a coccus?

- A) Rod-shaped
- B) Spiral-shaped
- C) Spherical**
- D) Comma-shaped

5. Which of the following is an obligate intracellular parasite that cannot replicate outside a host cell?

- A) Escherichia coli
- B) Chlamydia**
- C) Staphylococcus aureus
- D) Bacillus subtilis

6. What is the process by which bacteria reproduce asexually?

- A) Binary fission**
- B) Meiosis
- C) Mitosis
- D) Conjugation

7. Which taxonomic group consists of organisms that lack a membrane-bound nucleus?

- A) Eukaryotes
- B) Prokaryotes**
- C) Protists
- D) Fungi

8. In the Gram stain procedure, what color do Gram-positive bacteria appear under a microscope?

- A) Pink/Red
- B) Colorless
- C) Purple/Blue**
- D) Green

9. Which of the following microbial structures is primarily used for the attachment of bacteria to surfaces?

- A) Pili**
- B) Flagella
- C) Plasmids
- D) Endospores

10. What is a virus that specifically infects bacteria called?

- A) Viroid
- B) Prion
- C) Bacteriophage**
- D) Retrovirus