

Milestones in Microbiology

Microbiology · Answer Key · 12 Questions

1. Who is credited with being the first person to observe and describe 'animalcules' using a primitive single-lens microscope?

A) Antonie van Leeuwenhoek

- B) Robert Hooke
- C) Louis Pasteur
- D) Robert Koch

2. Which scientist is recognized for developing the process of pasteurization to prevent wine and beer from souring?

A) Joseph Lister

B) Louis Pasteur

- C) Edward Jenner
- D) Ferdinand Cohn

3. In 1882, Robert Koch discovered the causative agent of which significant human disease?

A) Cholera

B) Tuberculosis

- C) Smallpox
- D) Plague

4. What term did Robert Hooke coin in 1665 after observing cork tissue under a microscope?

A) Organelle

B) Nucleus

C) Cell

D) Bacteria

5. Who is considered the father of antiseptic surgery for his introduction of carbolic acid to sterilize surgical instruments?

A) Ignaz Semmelweis

B) Alexander Fleming

C) Joseph Lister

D) Paul Ehrlich

6. The first antibiotic, penicillin, was discovered by Alexander Fleming in 1928 from which mold genus?

- A) Aspergillus
- B) Penicillium**
- C) Rhizopus
- D) Fusarium

7. What set of four criteria did Robert Koch formulate to establish a causal relationship between a microbe and a disease?

- A) Koch's postulates**
- B) Pasteur's laws
- C) The germ theory
- D) The taxonomic hierarchy

8. Who pioneered the use of the smallpox vaccine in 1796, marking the first successful vaccination?

- A) Louis Pasteur
- B) Edward Jenner**
- C) Robert Koch
- D) John Snow

9. Which scientist is famous for disproving the theory of spontaneous generation using a swan-neck flask experiment?

- A) Lazzaro Spallanzani
- B) Louis Pasteur**
- C) Francesco Redi
- D) John Tyndall

10. Sergei Winogradsky is best known for discovering which fundamental biological process in microbes?

- A) Chemolithotrophy**
- B) Photosynthesis
- C) Binary fission
- D) Fermentation

11. Who was the first to visualize the structure of DNA using X-ray diffraction, which eventually led to understanding the genetic basis of microbes?

- A) Rosalind Franklin**
- B) Barbara McClintock
- C) Dorothy Hodgkin
- D) Ada Lovelace

12. Dmitri Ivanovsky is credited with the discovery of what type of infectious agent in 1892, which was too small to be trapped by porcelain filters?

- A) Prions
- B) Viroids
- C) Viruses**
- D) Mycoplasma