

Australian & Oceanian Microbiology Terminology Quiz

Microbiology · Answer Key · 25 Questions

1. What is the term for a single-celled organism that lacks a nucleus, common in Australian soil?

- A) Eukaryote
- B) Bacterium**
- C) Fungus
- D) Protist

2. In microbiology, a 'culture medium' is used to grow microorganisms. What is a common Australian native plant used in some specialised media?

- A) Eucalyptus
- B) Acacia**
- C) Banksia
- D) Kangaroo Paw

3. What microscopic structure is a key feature of bacteria, absent in human cells?

- A) Mitochondrion
- B) Chloroplast
- C) Cell wall**
- D) Ribosome

4. The Great Barrier Reef, off the coast of Queensland, is home to diverse marine microbes. What are microscopic algae that form symbiotic relationships with corals called?

- A) Cyanobacteria
- B) Diatoms
- C) Zooxanthellae**
- D) Dinoflagellates

5. What term describes the process by which bacteria reproduce asexually?

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

6. A 'pathogen' is an organism that causes disease. Which of the following is a common Australian environmental pathogen found in soil and water?

- A) Lactobacillus
- B) Escherichia coli
- C) Clostridium tetani**
- D) Saccharomyces cerevisiae

7. What type of microscopy is often used to visualise tiny bacterial cells, especially those with flagella in Australian aquatic samples?

- A) Light microscopy**
- B) Electron microscopy
- C) Atomic force microscopy
- D) Scanning microscopy

8. In the context of microbial genetics, what is a small, circular piece of DNA found in bacteria called?

- A) Chromosome
- B) Plasmid**
- C) Genome
- D) Operon

9. What term refers to the study of fungi, which are important decomposers in Australian forests?

- A) Virology
- B) Bacteriology
- C) Mycology**
- D) Parasitology

10. What is the name for microscopic organisms, including bacteria and archaea, found in extreme environments like Australian hot springs?

- A) Viruses
- B) Prions
- C) Extremophiles**
- D) Protozoa

11. When a microbe uses dead organic matter as food, like decaying eucalyptus leaves, it is called a:

- A) Autotroph
- B) Heterotroph**
- C) Chemoautotroph
- D) Photoautotroph

12. What does the term 'microbial diversity' refer to in an ecosystem like the Daintree Rainforest?

- A) The total number of microbes
- B) The variety of microbial species**
- C) The size of microbial populations
- D) The rate of microbial growth

13. What is the collective term for the community of microorganisms living in and on a particular environment, such as the human gut in Oceania?

- A) Colony
- B) Biofilm
- C) Microbiome**
- D) Culture

14. Which type of molecule is essential for building bacterial cell walls and is targeted by many antibiotics?

- A) Lipid
- B) Protein
- C) Nucleic acid
- D) Peptidoglycan**

15. What is the term for a microbe that can survive and even thrive in the presence of oxygen?

- A) Anaerobe
- B) Aerotolerant
- C) Facultative anaerobe
- D) Obligate aerobe**

16. In Australian wastewater treatment, what process uses microorganisms to break down organic pollutants?

- A) Sterilisation
- B) Pasteurisation
- C) Bioremediation**
- D) Fermentation

17. What is a common method for isolating individual bacterial colonies from a mixed sample on an agar plate?

- A) Incubation
- B) Centrifugation
- C) Streaking for isolation**
- D) Filtration

18. What is the term for a virus that infects bacteria?

- A) Retrovirus
- B) Bacteriophage**
- C) Adenovirus
- D) Lentivirus

19. The indigenous peoples of Australia have traditionally used certain plants for medicinal purposes. This knowledge is often studied as:

- A) Ethnopharmacology**
- B) Microbial ecology
- C) Genomics
- D) Immunology

20. What is the study of microorganisms in relation to disease called?

- A) Immunology
- B) Epidemiology
- C) Pathogenesis
- D) Medical microbiology**

21. Which process involves using heat to kill most harmful microorganisms in food products, like milk from Australian dairy farms?

- A) Autoclaving
- B) Tyndallisation
- C) Pasteurisation**
- D) Sterilisation

22. What term describes a microorganism that requires a host organism to survive and reproduce?

- A) Commensal
- B) Mutualist
- C) Parasite**
- D) Symbiont

23. In microbial genetics, what is the complete set of genetic material in an organism?

- A) Plasmid
- B) Operon
- C) Genome**
- D) Vector

24. What term refers to the microscopic examination of microbial samples using a staining technique to differentiate cell structures?

- A) Culturing
- B) Incubation
- C) Microscopy with staining**
- D) DNA sequencing

25. Which of these is a common type of microbial contamination found in Australian tap water if not properly treated?

- A) Yeasts
- B) Molds
- C) Bacteria**
- D) Algae