Name: _____ **Date:** _____

A Microbe's Guide to the Galaxy: College Microbiology Quiz

Assess foundational recall of taxonomic domains and cellular architecture focusing on pathogenic and industrial microorganisms.

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1. Which of the following organisms is characterized by a cell wall composed of peptidoglycan?

A. Staphylococcus aureus
B. Candida albicans
C. Entamoeba histolytica
D. Tobacco Mosaic Virus

2. Prions are considered microorganisms because they contain a simplified genetic code of RNA.

A. True
B. False

3. The ___ are a group of eukaryotic microorganisms that typically lack a cell wall and obtain nutrients through ingestion or absorption.

A. Archaea
B. Cyanobacteria
C. Protozoa
D. Bacteriophages

4. Which microorganism is widely utilized in the biotechnology industry for the production of ethanol and bread leavening?

A. Escherichia coli
B. Saccharomyces cerevisiae
C. Plasmodium falciparum
D. Mycobacterium tuberculosis

5. Archaea are prokaryotic organisms that are often found in extreme environments such as hydrothermal vents.

A. True
B. False

6. An organism that requires a living host cell to replicate and consists of a protein coat surrounding a nucleic acid core is known as a ___.

A. Viroid
B. Saprophyte
C. Virus
D. Bacillus

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7. Which of the following is a primary difference between prokaryotic and eukaryotic microbes?

A. Prokaryotes lack a nuclear membrane.
B. Eukaryotes lack ribosomes.
C. Prokaryotes contain mitochondria.
D. Eukaryotes do not have a plasma membrane.

8. Helminths, such as tapeworms, are technically studied in microbiology because their infective stages (eggs/larvae) are microscopic.

A. True
B. False

9. ___ are photosynthetic eukaryotes that play a critical role as primary producers in aquatic food webs.

A. Cyanobacteria
B. Algae
C. Mycoplasmas
D. Molds

10. Which of these is a common feature of all cellular microorganisms, but not viruses?

A. Genetic material (DNA or RNA)
B. The ability to evolve
C. Autonomous metabolism
D. Protein synthesis