Microbe Mission Test (20 Questions)

1. Identify three bacterial cell shapes and give one example of each.

2. Describe the steps of the Gram staining procedure and its significance.

3. List and describe the four stages of bacterial growth.

4. Compare the lytic and lysogenic virus replication cycles.

5. Match the following microbes to their industrial applications:

   a) Saccharomyces cerevisiae

   b) Spirulina

   c) Pseudomonas putida

6. Explain the purpose of the electron transport chain in ATP production.

7. Name two methods to culture bacteria and explain the difference.

8. Identify and describe the steps of lytic virus replication.

9. What is the 'Great Plate Count Anomaly,' and why does it occur?

10. Describe the structure and function of prions.

11. What is the role of teichoic acids in Gram-positive bacteria?

12. Define extremophiles and list three types with their respective environments.

13. Compare the structures of a bacterial and a eukaryotic cell.

14. Explain the role of catalase in bacterial cultures exposed to hydrogen peroxide.

15. Describe the purpose of selective and differential media in microbiology.

16. Identify two diseases caused by Plasmodium and explain their transmission.

17. What are the main differences between sterilization and disinfection?

18. Name two methods of microscopy and their primary applications.

19. What is bioremediation, and give an example of its application.

20. Explain how bacterial endospores aid in survival under harsh conditions.