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**DHANALAKSHMI SRINIVASAN COLLEGE
OF ARTS & SCIENCE FOR WOMEN
(AUTONOMOUS)**



(For Candidates admitted from 2020-2021 onwards)

**UG DEGREE EXAMINATIONS APRIL – 2021
B.SC - MICROBIOLOGY
MICROBIAL PHYSIOLOGY**

Time: 3 Hrs

Max.Marks: 75

PART- A

CHOOSE THE CORRECT ANSWER

(10*1=10)

1. Name those bacteria which obtain energy from chemical compounds?
 - a) Chemotrophs
 - b) Phototrophs
 - c) Organotrophs
 - d) Heterotrophs
2. Organisms that obtain energy from light are called
 - a) Chemotrophs
 - b) Phototrophs
 - c) Organotrophs
 - d) Lithotrophs
3. The _____ elements which can exist in the cell as cations and play a variety of roles.
 - a) Minor elements
 - b) Major elements
 - c) Potassium
 - d) Phosphorus
4. In growth curve the log phase is maintained by _____.
 - a) 10-12 hours
 - b) 15-20 hours
 - c) 24 hours
 - d) 48 hours
5. Biological membranes consist of _____.
 - a) Double sheet
 - b) Single sheet
 - c) Triple sheet
 - d) Tetra sheet
6. The oxidative stress can cause disruption in normal of _____.
 - a) Cellular signalling
 - b) Imbalance
 - c) biological systems
 - d) Non of the above.
7. The _____ substances used in bio synthesis and energy production and required for microbial growth.
 - a) Nutrients
 - b) Foods
 - c) Substrate
 - d) Nitrogen
8. The balanced events of death and growth in a stationary phase is called _____.
 - a) Cryptic growth
 - b) Affecting growth
 - c) Growth phase
 - d) None of these
9. The process of formation of endospore with in a vegetative cell is called _____.
 - a) Sporulation
 - b) Respiration
 - c) Reduction
 - d) Spore
10. Micro organisms like yeast and bacteria usually play a vital role in _____ process.
 - a) Fermentation
 - b) Diffusion
 - c) Regeneration
 - d) None of these

PART - B

ANSWER ALL THE QUESTIONS

(5×7=35)

11. a) write an account on the nutritional types of bacteria.

(OR)

b) Explain about bacterial photosynthesis.

12. a) Give an account on Minimal media

(OR)

b) Describe in detail about undefined media.

13. a) What are the 3 steps of Glycolysis? Explain.

(OR)

b) write an account on the oxidation mechanisms.

14. a) Explain about the exponential phase.

(OR)

b) Write short notes on bacterial growth curve.

15. a) Give an account on the sporulation.

(OR)

b) Write an account on fermentation process.

PART - C

ANSWER ANY THREE QUESTIONS.

(3×10=30)

16. Explain in detail about the Microbial nutrition.

17. Describe in detail about the types of media.

18. Explain about the EMB pathway.

19. Give an account on the methods of growth measurement of microbes.

20. Describe in detail about the natural properties of Spores.