

S.No. 6913

P 16 MB 21

(For candidates admitted from 2016–2021 batch)

M.Sc. DEGREE EXAMINATION, NOVEMBER 2023.

Microbiology

MICROBIAL PHYSIOLOGY

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. Exopolysaccharides
2. Pili
3. Thermophilic
4. Psychrophilic
5. Myxotrophs
6. Phycobiliproteins
7. Anabolism
8. Fermentation

- 9. Endospore
- 10. Sporulation

SECTION B — (5 × 5 = 25)

Answer ALL questions, choosing either (a) or (b).

- 11. (a) Write a brief note on S – Layer.

Or

- (b) Give a brief account on artificial Electron Donors.

- 12. (a) Explain the Phases of Growth curve.

Or

- (b) Brief account on adaptive mechanism of osmophilic.

- 13. (a) Write short notes on Heterotrophs.

Or

- (b) Short notes on Photosynthetic bacteria.

- 14. (a) Explore the Difference between C₃ and C₄ pathways.

Or

- (b) Differentiate Homo and heterolactic fermentations.

- 15. (a) Explain the Structure and Properties of endospore.

Or

- (b) Brief account on bacterial spores.

SECTION C — (3 × 10 = 30)

Answer any THREE questions.

- 16. Explain in detail about the transport mechanism of microbes.
- 17. Give a detail account on adaptive mechanism of thermophilic and alkalophilic.
- 18. Write an essay on Autotrophic mode of nutrition with suitable examples.
- 19. Write an elaborate note on Emden Mayer Hoff pathway.
- 20. Describe in detail about sporulation and morphogenesis of Actinobacteria.