

Reg. No

Name

M. Sc DEGREE END SEMESTER EXAMINATION - OCTOBER 2019**SEMESTER 1 : BOTANY****COURSE : 16P1BOTT01 : MICROBIOLOGY AND PHYCOLOGY***(For Regular - 2019 Admission and Supplementary - 2016/2017/2018 Admissions)*

Time : Three Hours

Max. Marks: 75

Section A**Answer any 8 (2 marks each)**

1. What is meant by Hfr conjugation?
2. Write a short note on endospore staining.
3. Differentiate between bacterial endospores and exospores.
4. Name any two algal research centres in India.
5. What is the major difference in the classification of algae by F.E. Fritch and G.M. Smith?
6. What are endospores?
7. Name any two algae seen in symbiotic association.
8. Give any two common preservatives for algae.
9. Explain the role of microbes in industrial production of alcohol and antibiotics.
10. What are prions?
11. What are capsid and capsomere?
12. Name any two algae used as a source of restriction endonuclease.

(2 x 8 = 16)

Section B**Answer any 7 (5 marks each)**

13. Explain the peculiarities of bacterial cell envelope in providing pathogenicity.
14. Give an account on bacterial DNA barcoding.
15. With suitable examples, explain various asexual reproductive methods in algae.
16. Write an account of algae involved in symbiotic association.
17. How do algae affect the productivity of aquatic ecosystem?
18. Briefly explain the method of herbarium preparation for algal specimens.
19. Explain various virulence factors in bacteria.
20. What are the stages of downstream processing in industrial microbiology?
21. What are the distinctive properties of viruses?
22. How do algae become harmful to human beings?

(5 x 7 = 35)

Section C**Answer any 2 (12 marks each)**

23. Write an essay on major groups of bacteria. Specify their biological significance.

OR

24. Give a comprehensive account on food microbiology with special reference to food spoilage, preservation methods, fermentation and SCP.

25. Write an essay on the interrelationship with respect to thallus organization among various members of Chlorophyceae.

OR

26. Give an account on the cellular organization of algal cell wall and the photosynthetic pigments with suitable diagrams.

(12 x 2 = 24)