

Reg. No.....Name: **Q. Code:** P106

M SC DEGREE END SEMESTER EXAMINATION 2014 -15
SEMESTER -1: BOTANY
COURSE: P1BOTT01: MICROBIOLOGY AND PHYCOLOGY

Time: 3 Hours

Max. Marks: 75

I. Answer **any eight** questions briefly; each question carries 2 marks

1. What are parasitic algae? Give an example.
2. What is heterotrichous habit?
3. What is anisogamy? Give example
4. What is 'eye spot'?
5. Bring out the major criteria for algal classification.
6. Comment on the role of algae in soil fertility
7. What are viroids? Name two plant disease caused by them.
8. Give an account on Mycoplasmas.
9. Briefly describe the ultra structure of flagellum of bacteria.
10. Explain the endospore of bacteria and their significance.
11. What is Archaeobacteria?
12. Give an account on pure culture of bacteria.

(8 x 2 = 16)

II. Answer **any seven** questions; each question carries 5 marks

13. Compare the different types of life cycles in algae..
14. Briefly explain the major algal research centre in India.
15. The productivity of marine environment is determined by algae.
Discuss.
16. Briefly describe the procedure and application of algal culture.
17. Explain the characteristics of cyanophyceae and its economic importance.
18. How algal indicators are helpful in pollution research?
19. What are plasmids? Enumerate its biological significance.
20. Explain the multiplication of plant viruses with suitable examples.

21. What are the different methods of isolation of pure culture of bacteria?

22. Explain the structure of HIV.

(7 x 5 = 35)

III. Answer **any two** questions; each question carries 12 marks

23. Write an essay on the evolutionary differentiation of algal thallus with the help of diagrams.

OR

24. Explain the origin of higher plant groups from algae, citing suitable examples.

25. With the help of illustrations write an essay on genetic recombination in bacteria.

OR

26. Write an essay on the nomenclature and classification of viruses. Add a note on symmetry of plant viruses with examples.

(2 x 12 = 24)