

B SC DEGREE END SEMESTER EXAMINATION, OCTOBER 2015

SEMESTER - 3: BOTANY (CORE COURSE)

COURSE: U3CRBOT3: MICROBIOLOGY AND PHYCOLOGY

Time: Three Hours

Max. Marks: 60

PART A

I. Answer **ALL** questions; each question carries ONE mark. (1 x 8 = 8)

1. What is nucleoid?
2. Who is father of Modern Indian Algology?
3. Name the algae that cause red rust of tea.
4. What is a diatom shell called as?
5. What is synzoospore?
6. What is red tide?
7. What is a virion?
8. What is bioremediation?

PART B

II. Answer **ANY SIX** questions; each question carries TWO marks. (2 x 6 = 12)

9. What is Gongrosira stage of Vaucheria?
10. List out two uses of diatomite.
11. What are heterocysts?
12. Differentiate: Thermophytes and halophytes.
13. Give a short account of two major kinds of culture of algae.
14. What is gram staining?
15. What are mesosomes?
16. Give any two types of food poisoning by bacteria.
17. Write a short note on biogas production.
18. Define and give one example each: Biofertilizers and Biopesticides.

PART C

III. Answer **ANY FOUR** questions; each question carries FOUR marks. (4 x 4 = 16)

19. Explain the development of daughter coenobium from gonidium in Volvox.
20. What is diplohaplontic life cycle? Explain with the help of life cycle of Cladophora.
21. Explain any four types of asexual spores seen in algae.
22. Explain the structure and germination of endospore.
23. Differentiate the structure of TMV and HIV.
24. List out any 4 beneficial uses of algae.

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PART D

IV. Answer ANY TWO questions; each question carries TWELVE marks. (12 x 2 = 24)

25. With the help of suitable diagrams discuss sexual reproduction in Sargassum.

OR

26. Explain the thallus organisation in algae.

27. 'Nitrogen cycle is incomplete without micro organisms'. Substantiate this statement explaining nitrogen cycle.

OR

28. 'Transformation and transduction are two ways of genetic recombination in Bacteria'. Explain.
