



12DD 44 – I (12)

B.Sc. I Semester Degree Examination, November/December 2012
BOTANY

Paper – I : Diversity of Microbes and Non-Vascular Plants – I
Introduction to Microbiology, Viruses, Mycoplasma, Bacteria,
Cyanobacteria and Algae

Time : 3 Hours

Max. Marks : 80

- Instructions :** 1) *Part – I is compulsory.*
2) Answer **any eight** questions in *Part II.*
3) *Labelled diagram will enhance the value of answers.*

PART – I

I. Answer the following in brief :

(2×8=16)

- 1) What are akinetes ? Give example.
- 2) Draw a labelled diagram of Gloeotrichia filament.
- 3) What are apical caps ? Give example.
- 4) What is symbiosis ? Give example.
- 5) Mention photosynthetic pigments in Rhodophyceae.
- 6) What are virioids ?
- 7) Draw a labelled diagram C.S. of female conceptacle of sargassum.
- 8) What are amyllum stars ?

PART – II

II. Answer **any eight** of the following :

(8×8=64)

- 9) Explain the applications of microbiology.
- 10) Describe the sex organs of chara.
- 11) Explain the contributions of Louis Pasteur and Leuwenhock.
- 12) Explain volvox coenobium and add a note on asexual reproduction.
- 13) Describe post-fertilization changes in polysiphonia.
- 14) Describe the structure of bacteriophage with labelled diagram and add a note on multiplication.
- 15) Explain the Thallus of seytonema and write the reasons for false branching.

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- 16) Explain the following :
 - a) Sandle spike disease
 - b) Economic importance of algae.
- 17) Explain the role of bacteria in industry and agriculture.
- 18) Explain the Thallus structure of Vaucheria and add a note on a sexual reproduction.
- 19) Give a detailed account of Fritsch's system of classification of algae.
- 20) Explain **any two** of the following :
 - a) Bacterial transformation.
 - b) Mycoplasma.
 - c) Asexual reproduction in Ordogonium.
 - d) Cell division in diatoms.

