Reg. No. : .....

(Pages : 2)

B – 3737

Name : .....

Third Semester B.Sc. Degree Examination, December 2016
(First Degree Programme Under CBCSS)
BOTANY
Core Course – II
BO 1341 : Microbiology, Phycology, Mycology, Lichenology and Plant Pathology
(2014 Admission Onwards)

Time : 3 Hours

Max. Marks : 80

All Saints' College Trivandrum

I. Write a short note on the following. **All** questions are **compulsory**.

1) Amylum stars
2) Diatomaceous earth
3) Cap cells
4) Rhizosphere
5) TMV
6) Algal Bloom
7) Necrosis
8) Pigments of phaeophyceae
9) Ascocarp of *Penicillium*
10) Heterocyst.

(10×1=10 Marks)

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

11) General character of Bacillariophyceae.
12) Describe the structure of Bacteriophage.
13) Cell structure of *Nostoc*.
14) Write notes on Palmella stage.
15) Gram staining in Bacteria.
16) Economic importance of Algae.

P.T.O.

17) Cell structure of *Pinnularia*.

18) Peziza apothecium.

19) Bordeaux mixture.

20) Draw a labelled diagram and describe external morphology of *Sargassum*.

21) Write note on Blast of Paddy explaining the causative organism, symptoms and control measures.

22) Economic importance of Lichens. **(8×2=16 Marks)**

III. Answer **any six** of the following.

23) Explain the structure of globule of *Chara* with neat labelled diagram.

24) Give a brief account of formation of Synzoospore.

25) Briefly explain the role of microbes in soil fertility giving special emphasis on Nitrogen fixation.

26) Describe the structure and reproduction in *Rhizopus*.

27) With labelled diagram describe the structure of apothecium of *Usnea*.

28) Explain with suitable diagrams sexual reproduction in *Vaucheria*.

29) Microbial methods of waste water management.

30) Explain the structure of basidiocarp of *Agaricus*.

31) Explain lysogenic cycle. How is it different from lytic cycle ? **(6×4=24 Marks)**

IV. Write essay on **any two** of the following.

32) What is a heteroecious fungus ? Explain the life cycle of a heteroecious fungus you have studied with suitable diagrams.

33) With schematic representation explain the life cycle of *Polysiphonia* giving special mention on the reproduction and post fertilization changes.

34) Describe in detail thallus evolution in algae.

35) Discuss the various mechanisms of reproduction in bacteria. Explain how phages bring about genetic variation in bacteria. **(2×15=30 Marks)**

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