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**E – 4425**

Reg. No. : .....

Name : .....

**Second Semester B.Sc. Degree Examination, August 2018**
**First Degree Programme Under CBCSS**
**Complementary Course**
**BO 1231 : PHYCOLOGY, MYCOLOGY, LICHENOLOGY, BRYOLOGY, PTERIDOLOGY, GYMNOSPERMS AND PLANT PATHOLOGY**
**(2014 Admission Onwards)**

Time : 3 Hours

Max. Marks : 80

***Instruction** : Draw diagrams **wherever** necessary.*

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

1) Circinate vernation
2) Ligule
3) Cystocarp
4) Heterocyst
5) Name two edible fungus
6) Symbiosis
7) Nucule
8) Soredium
9) Mention the types of rhizoids of *Riccia*
10) Composition of Bordeaux mixture. **(10×1=10 Marks)**

II. Answer **any 8** of the following :

11) Distinguish between autospore and androspore.
12) What are the pigments in phaeophyceae ?
13) Write down the structure of conidiophores of *Penicillium*.
14) How will you differentiate the apothecium of *Peziza* and *Usnea* anatomically ?
15) Describe the salient features of *Pinus* needle.
16) Discuss the rnorphological characters of *Riccia* thallus.
17) Differentiate sporangium, sorus and sporophyll.

**P.T.O.**

18) Explain the structure of mature sporangium of *Pteris*.

19) Tobacco decoction.

20) How tapioca mosaic disease is spreading ?

21) Write down the peculiarities of *Selaginella* rhizophore.

22) Describe the structure of a typical archegonium seen in bryophytes.

**(8×2=16 Marks)**

III. Answer **any 6** questions. Answers do **not** exceed **120** words. **Each** question carries **4** marks.

23) Discuss *Riccia* sporophyte with neat labelled diagram.

24) Briefly explain different types of spores seen in *Puccinia*.

25) Discuss the causative organism, symptoms and control measures of Powdery mildew of rubber.

26) Compare male and female conceptacles of *Sargassum*.

27) With neat labelled diagram discuss the structure of *Chara* globule.

28) Describe briefly the Prothallus of *Pteris*.

29) Draw the LS of *Pinus* ovule with neat labelled diagram and discuss.

30) Describe the asexual reproduction of *Rhizopus*.

31) Explain the post fertilization changes in the life history of *Polysiphonia*.

**(6×4=24 Marks)**

IV. Write an essay on **any 2** of the following. **Each** question carries **15** marks.

32) Discuss the sexual reproduction of *Oedogonium*.

33) Write down the economic importance of fungi.

34) Compare the life cycle of a homosporous and heterosporous pteridophyte that you have studied.

35) Describe alternation of generation mentioning the life of *Pinus*.

**(2×15=30 marks)**