

**First Year B.Sc., Degree Examination**  
**August / September 2009**  
**Directorate of Correspondence Course**  
**(Freshers)**  
**Botany**  
**Paper - I : Protophyta, Thallophyta, Bryophyta and**  
**Pteridophyta**

Time : 3 Hours

Max. Marks : 85

- Note :** 1. **Answer all questions**  
2. **Draw diagrams wherever necessary**

**I. Simple answer questions :**

**10x1=10**

**Answer in a word, phrase or sentence.**

1. Name the asexually reproducing organ in *Psilotum*.
2. Mention the characteristic pigments present in *Nostoc*
3. What are mycobionts?
4. Name the pathogen that cause citrus canker.
5. What is capsid?
6. In which bryophytic form the calyptra is present?
7. What is meant by heteroecious fungus?
8. What are chemosynthetic Bacteria.
9. Name the Pteridophyte possessing both hydrophytic and xerophytic features.
10. What is carpogonium?

**II. Short answer questions.**

**5x3=15**

**Answer any FIVE questions**

11. Describe the structure of *Spirogyra*.
12. Differentiate solenostele and siphonostele.
13. Explain the structure of *Nostoc* filament
14. Enumerate gametophytic features of *Anthoceros*.
15. List out the economic importance of Lichens
16. Describe the structure of TMV
17. Explain telial stage in *Puccinia*.

**III. Medium answer questions.**

**5x6=30**

**Answer any FIVE questions.**

18. Describe asexual reproduction in *Cercospora*.
19. Explain the T/S of *Pteris* sporophyll.
20. Describe conjugation in *Bacteria*.
21. Explain the external features of *Porella* gametophyte
22. Describe the internal structure of globule in *Chara*.
23. Describe the anatomy of *Selaginella* stem.

**IV. Long answer questions.**

**3x10=30**

**Answer any THREE questions**

24. Explain the sexual reproduction in *Batrachospermum*.
25. Describe the V/S of sporophyte in *Anthoceros*.
26. Describe sexual reproduction in *Rhizopus*.
27. Explain
  - a) T.S. of Lichen thallus
  - b) Economic importance of *Spirulina*

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