

2022

BOTANY — HONOURS

Paper : CC-1

(Phycology and Microbiology)

Full Marks : 50

The figures in the margin indicate full marks.

*Candidates are required to give their answers in their own words
as far as practicable.*

1. Answer the following questions : 2×5
- (a) What is triphasic Life Cycle?
- (b) What is Palmella stage? Where is it found?
- (c) What is Prion?
- (d) What is eclipse period?
- (e) What is episome?
2. (a) Write a brief note on various types of thallus structures found in algae. 5
- Or,**
- Briefly describe the origin of sex in algae. 5
- (b) Write the ultrastructure of Flagella in bacteria. 5
- Or,**
- Write a brief note on Bacterial genome and Glycocalyx. 2½+2½
3. Write down the auxospore formation of Pennales with labelled sketches. State the salient features of Heterokontophyta. 7+3
- Or,**
- What is Plurilocular Sporangium? Write down the sexual reproduction of *Ectocarpus* with labelled sketches. 2+8
4. Write down the structure and formation of bacterial endospore. What are Pili? Discuss the function of pili. 6+1+3
- Or,**
- Write down the physico-chemical characteristics of TMV. Enumerate one-step growth curve of virus. 5+5

Please Turn Over

5. Write down the salient features of cyanobacteria. Briefly describe the post-fertilisation changes found in *Polysiphonia*. 4+6

Or,

Write a brief note on the following :

2½×4

- (i) Proteobacteria
 - (ii) Mollicutes
 - (iii) Chlamydiae
 - (iv) Spirochaetes.
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