

2018

BOTANY – HONOURS

Paper : CC-1

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 flagellar basal body?
 - (b) Name one freshwater and one unicellular red algae.
 - (c) What is red snow phenomenon?
 - (d) What is induction? Name one inducing agent.
 - (e) Differentiate viriod and virion.
2. (a) Describe the process of auxospore formation in pinnate diatoms with suitable illustrations. 5
- Or,*
- Write a brief note on ultrastructure of algal plastids and their variation. 5
- (b) Comment on the multiplication of TMV with diagrams. 5
- Or,*
- Discuss with the help of suitable diagrams, the process of endospore development in bacteria. 5
3. Give an outline of Algal classification as proposed by Lee (2008) up to phylum. What are the criteria of Fritsch's classification? 8+2
- Or,*
- Describe the ultrastructure of a cyanobacterial cell with suitable diagrams. Write a brief note on Evolutionary significance of *Prochloron*. 8+2
4. With suitable illustrations describe the structure of bacterial peptidoglycan. State at least four important characteristics of spirochaetes. 6+4
- Or,*
- Discuss about the modes of viral transmission. Enumerate the ultrastructure of bacterial flagella. What is F plasmid? 4+4+2

Please Turn Over

5. (a) Compare the characteristic features of xanthophyta with chlorophyta. What is the other name of class xanthophyceae?
- (b) Cyanobacteria occur in most extreme environments on earth. — Explain the statement. (5+1)+4

Or,

What is genetic recombination? Comment on bacterial recombination with reference to transduction.

2+8
