



**WEST BENGAL STATE UNIVERSITY**  
B.Sc. Honours 1st Semester Examination, 2019  
**BOTACOR01T-BOTANY (CC1)**



Time Allotted: 2 Hours

Full Marks: 40

*The figures in the margin indicate full marks.  
Candidates should answer in their own words and adhere to the word limit as practicable.*

1. Answer **all** questions briefly from the following: 1×5 = 5
- (a) Who proposed three domain system concept of classification?
  - (b) What is the causal organism of AIDS?
  - (c) What is Prophage?
  - (d) What is Corona?
  - (e) Why Phaeophyceae are brown in colour?

2. Answer any **five** questions from the following: (At least **two** questions from each Group) 3×5 = 15

**GROUP-A**

- (a) Draw and describe the structure of T4 phage. 1  $\frac{1}{2}$  + 1  $\frac{1}{2}$
- (b) Write short notes on Mycoplasma.
- (c) Write a note on different type of plasmids with their function.
- (d) Differentiate between Virulent and Temperate phage.

**GROUP-B**

- (e) What is 'dwarf male'? State its function.
- (f) Write a note on *Prochloron*.
- (g) Mention the characteristic features of Xanthophyceae.
- (h) Describe the cellwall structure of Cyanophyceae.

3. Answer any **four** questions from the following: (At least **two** questions from each Group) 5×4 = 20

**GROUP-A**

- (a) Write down the characteristic features of Archaea.
- (b) Draw and describe the bacterial Growth Curve. 1  $\frac{1}{2}$  + 3  $\frac{1}{2}$
- (c) Draw and describe the process of transformation in any bacteria. 2+3

**GROUP-B**

- (d) Elucidate the ultrastructure of algal flagella.
- (e) With labelled diagram describe the external and internal structure of *Fucus*. 2  $\frac{1}{2}$  + 2  $\frac{1}{2}$
- (f) What is Cystocarp? Describe its structure. Name two economically important Rhodophyceae and mention its importance. 1+2+2

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