

**B.Sc. 1<sup>st</sup> Semester (Honours) Examination, 2020 (CBCS)**

**Subject: Botany (Hons)**

**Paper: CC-I**

**Microbiology and Phycology**

**Time: 2 Hours**

**Full Marks: 40**

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

**A. Answer any eight questions from the following: 5 x 8 = 40**

1. Write five bacterial characters and five algal characters of Cyanophyceae. 5
2. Describe the process of transduction in bacteria. 5
3. Draw and describe the ultra-structure of Gram-negative bacterial flagella. 5
4. Describe with suitable diagram the process of conjugation in *Zygnema*. 5
5. Explain the endosymbiosis theory on account of origin of algal plastid. 5
6. Illustrate the sexual reproductive structures of *Fucus*. 5
7. Give a short note on algal pigments. 5
8. Briefly discuss the structure of TMV. 5
9. Summarise the characteristic features of Viroid with example. What is Prion? 5
10. Give an outline of Lysogenic Cycle. 5