

**Q.P. Code : 11128**

**First Semester B.Sc. Degree Examination,  
November/December 2019**

*(CBCS – Freshers and Repeaters – 2018-19 and onwards)*

**Botany**

**Paper I – INTRODUCTION TO MICROBIOLOGY, VIRUSES,  
BACTERIA, CYANOBACTERIA AND PHYCOLOGY**

*Time : 3 Hours]*

*[Max. Marks : 70*

*Instructions to Candidates :*

- 1) *Answer all Parts.*
- 2) *Draw diagrams wherever necessary.*

**PART – A**

- I. Define/Explain any **TEN** of the following in **2** or **3** sentences : **(10 × 2 = 20)**
1. What are antigens?
  2. What are akinetes?
  3. Mention any two contributions of Robert Koch.
  4. Define conjugation.
  5. What is SCP?
  6. What are biopesticides?
  7. Define coenobium. Give an example.
  8. Name any two nitrogen fixing bacteria.
  9. What is nutrient medium?
  10. What are water blooms?
  11. What are cryptostomata?
  12. What is a tetrasporophyte? Give an example.

**Q.P. Code : 11128**

PART - B

(4 × 5 = 20)

II. Write critical notes on any **FOUR** of the following :

13. Prions.
14. Papaya leaf curl.
15. Role of Cyanobacteria in water pollution and treatment.
16. Thallus structure of Sargassum.
17. Structure of chlamydomonas cell.
18. Salient features of Cyanobacteria.

PART - C

III. Give comprehensive account on any **THREE** of the following :

(3 × 10 = 30)

19. Describe the sex organs of Chara.
20. Give an account of ELISA technique.
21. Explain the structure of bacteriophage. Discuss lytic cycle in detail.
22. Explain the thallus structure and reproduction in Anabaena.
23. Discuss the following :
  - (a) Structure of a bacterial cell
  - (b) Applications of bacteria in industry.