

**E 6128**

(Pages : 2)

Reg. No.....

Name.....

**B.Sc. DEGREE (C.B.C.S.S.) EXAMINATION, NOVEMBER 2018**

**First Semester**

Complementary Course—FUNDAMENTALS OF MICROBIOLOGY—I

[For B.Sc. Biotechnology]

(2013—2016 Admissions)

Time : Three Hours

Maximum Marks : 60

**Part A**

*Answer all questions.*

*Each question carries 1 mark.*

1. What is autoclaving ?
2. Write about Pili.
3. What is the importance of peptidoglycan ?
4. Define Plasmid.
5. Write two chemical sterilizing agents.
6. What is the importance of electron microscope in microbiology ?
7. Write about broth culture.
8. Name a gram negative bacteria.

(8 × 1 = 8)

**Part B**

*Answer any six of the following.*

*Each question carries 2 marks.*

Write Briefly on :

9. Fimbriae.
10. Procedure of Gram's staining.
11. Scope of microbiology.
12. Hanging drop.
13. Differential staining.

**Turn over**

14. Types of bacteria based on shape.
15. Importance of Flagella.
16. Phase contrast microscopy.
17. Protozoa.
18. Antibiotic resistance.

(6 × 2 = 12)

### Part C

*Answer any four of the following.  
Each question carries 4 marks.*

Write Short Essays on :

19. Measurement of bacterial growth.
20. Antibiotics and mode of action.
21. Sterilization methods.
22. Antimicrobial agents.
23. Classification of algae.
24. Pure culture.

(4 × 4 = 16)

### Part D

*Answer any two of the following.  
Each question carries 12 marks.*

Write Essays on :

25. Give an outline of harmful and beneficial microbes.
26. Explain Methodology of pure culture. Mention factors effecting growth of media.
27. Illustrate and explain ultra structure of a bacterial cell. Explain how a bacterial cell can be visualized.
28. Explain culture media used for bacterial culture.

(2 × 12 = 24)