

**D 52739**

**(Pages : 2)**

**Name.....**

**Reg. No.....**

**FIRST SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2018**

**(CUCBCSS—UG)**

**Core Course (Microbiology)**

**MBG 1B 01—GENERAL MICROBIOLOGY**

**(2018 Admissions)**

**Time : Three Hours**

**Maximum : 80 Marks**

**Part A**

*Answer all questions.*

*Each question carries ½ mark.*

1. The defined structure outer to the cell wall of certain bacteria is called \_\_\_\_\_.
2. \_\_\_\_\_ acid is present in Gram positive bacterial cell wall, absent in Gram negative.
3. Joseph Lister used \_\_\_\_\_ for antiseptic surgery.
4. The bacteria which live in extreme environmental conditions are known as \_\_\_\_\_.
5. The part which bears the objective lenses in a light microscope is termed as \_\_\_\_\_.
6. Anthrax vaccine was developed by \_\_\_\_\_.
7. Give an example for a unicellular fungus.
8. Dipicolinic acid and calcium ions are responsible for the high resistance of \_\_\_\_\_.
9. Name the outer proteinaceous coat of a virus.
10. \_\_\_\_\_ are branching filamentous forms of bacteria.
11. Name a differential staining technique.
12. Name the comparative efficiency testing method of disinfectant.

**(12 × ½ = 6 marks)**

**Part B**

*Answer all questions.*

*Each question carries 2 marks.*

**Comment on the following :**

13. Inspissation.
14. Phase contrast microscope.

**Turn over**

15. Biogenesis theory.
16. Simple staining.
17. Pili.
18. Holding period.
19. Volutin granules.
20. Peplomers.
21. Discovery of penicillin.
22. Bacterial morphology.

(10 × 2 = 20 marks)

### Part C

*Answer any six questions.  
Each question carries 5 marks.*

Write briefly on the following :

23. Structure of bacterial cell wall.
24. Differential staining.
25. Disinfectants.
26. Fluorescent microscopy.
27. Structure and formation of bacterial endospore.
28. Differentiate between prokaryotes and eukaryotes.
29. Structure of bacteriophages.
30. Ultrastructure and arrangements of bacterial flagella.

(6 × 5 = 30 marks)

### Part D

*Answer any two questions.  
Each question carries 12 marks.*

31. Describe the ultra structure of a prokaryotic cell with suitable diagrams.
32. Discuss different sterilization methods with their applications.
33. Explain the major historical developments in the field of Microbiology.

(2 × 12 = 24 marks)