D 13801 (Pages : 2) Name.....

Reg. No.....

FIRST SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2016

(CUCBCSS–UG)

Core Course—Microbiology

MBY 1B 01—GENERAL MICROBIOLOGY

Time : Three Hours Maximum : 80 Marks

Part A

Answer **all** *the following.*
Each question carries ½ mark.

1. The term vaccine was coined by ———.
2. Nitrogen fixation was discovered by ———.
3. The first antibiotic was discovered by ———.
4. Electron microscope was invented by ———.
5. The intracytoplasmic inclusion bodies containing polymetaphosphate are called ———.
6. The temperature time combination for ordinary routine autoclaving is 121° C for ——— min.
7. Define bacteriophages.
8. What is the other term for intermittent sterilization ?
9. What are the specialised cells in cyanobacteria performing nitrogen fixation called ?
10. The pioneer scientist who studied toxins and antitoxins in quantitative terms.
11. The scientists who introduced the techniques of sterilization.
12. Give an example for differential staining.

(12 × ½ = 6 marks)

Part B

Answer **all** *the following.*
Each question carries 2 marks.

Write briefly on :

13. Theory of spontaneous generation.
14. Joseph Lister.
15. Edward Jenner.
16. Winogradsky column.
17. Bacterial chromosome.
18. Archebacteria.
19. Spirochaetes.
20. Negative staining.
21. Ultrafiltration.
22. Asepsis.

(10 × 2 = 20 marks)

Turn over

Part C (Short Essay Type Questions)

Answer any **six** *of the following.*
Each question carries 5 *marks.*

23. Sterilization by radiation.
24. Laminar flow hood.
25. Bacterial spore staining.
26. Bacterial flagella.
27. Morphology and arrangement of bacterial cells.
28. Koch's postulates.
29. Flourescence microscopy.
30. Fuelgen staining.

(6 × 5 = 30 marks)

Part D (Essay Type Questions)

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

31. Give a historical review of developments in Microbiology.
32. Give an account of various types of microscopy.
33. Describe the various methods of heat sterilization.

(2 × 12 = 24 marks)