

(Pages : 3)

N – 4255

Reg. No. :

Name :

First Semester B.Sc. Degree Examination, June 2022
Career Related First Degree Programme Under CBCSS
Group 2(a) — Biochemistry and Industrial Microbiology
Vocational Course — I
IM 1171 — FUNDAMENTALS OF MICROBIOLOGY
(2020 Admission onwards)

Time : 3 Hours

Max. Marks : 80

I. Answer the following in one or two sentences.

1. Chlamydia.
2. S Layer.
3. Ernst Abbe Equation.
4. Oil immersion objective.
5. Negative staining.
6. UV radiation.
7. Disinfection by alcohol.
8. Pasteurisation.
9. Chlorophyta.
10. Saccharomyces.

(10 × 1 = 10 Marks)

P.T.O.

II. Write a short paragraph on any **eight** of the following :

11. Dinoflagellates.
12. Sexual reproduction of fungi.
13. Bacterial Capsule.
14. Hot air oven.
15. Discovery of Antibiotics.
16. Spore Staining.
17. Principle and working of fluorescent microscope.
18. Reproduction in protozoa.
19. Disinfection by chlorin.
20. Agar Agar.
21. Ascomycete.
22. SDA.
23. Plaque assay.
24. Icosahedral Symmetry.
25. Algal bloom.
26. Spirillum and Spirochaetes — Difference.

(8 × 2 = 16 Marks)

III. Answer in one or two pages on any **six** of the following.

27. TEM.
28. Spontaneous generation theory.

29. Contributions by Louis Pasteur.
30. Principle of Gram Staining.
31. Bacterial Inclusion bodies.
32. Anaerobic culture techniques.
33. Nucleoid.
34. Freeze drying.
35. Enrichment media.
36. TDT.
37. Bacteriophage.
38. Cold Sterilisation.

(6 × 4 = 24 Marks)

IV. Write essay in not less than four pages on any **two** of the following.

39. Golden Age of Microbiology.
40. Briefly discuss the principle and procedure for different bacterial staining techniques.
41. Morphological difference between Gram Positive and Gram Negative Bacterial Cell.
42. Pure culture techniques.
43. Discuss different sterilization and disinfection techniques.
44. Explain the morphological features of fungi and protozoa.

(2 × 15 = 30 Marks)