



**K21U 6805**

Reg. No. : .....

Name : .....

**I Semester B.Sc. Degree (CBCSS-OBE – Regular/Supplementary/Improvement)  
Examination, November 2021  
(2019 Admission Onwards)  
CORE COURSE IN MICROBIOLOGY  
1B01MCB – Fundamentals of Microbiology**

Time : 3 Hours

Max. Marks : 40

**SECTION – A**

Short answer : Answer **all** questions. **Each** question carries **1** mark. **(6×1=6)**

1. Joseph Lister.
2. Spontaneous generation.
3. Robert Koch.
4. Principle of phase contrast microscope.
5. Germ theory of disease.
6. Alexander Fleming.

**SECTION – B**

Short essay : Answer **any 6** questions. **Each** question carries **2** mark. **(6×2=12)**

7. Notes on mode of action of antibiotics.
8. Brief notes on cultivation of viruses.
9. Short notes on morphology and arrangement of bacteria.
10. Difference between bright field and dark field microscope.
11. LPCB staining.
12. Principle and mechanism of fluorescent microscope.
13. Define stain and classify it.
14. Brief notes on cultivation of algae and protozoa.

P.T.O.

K21U 6805



SECTION – C

Essay : Answer **any 4** questions. **Each** question carries **3** mark. (4×3=12)

15. Write the principle and mechanisms of chemical sterilization methods.
16. What is sporulation ? Explain the steps of sporulation with diagram.
17. Brief notes on pure culture techniques.
18. What is differential staining ? Write two differential staining techniques.
19. Notes on TEM and SEM.
20. Detailed notes on flagella and endospore staining techniques.

SECTION – D

Long Essay : Answer **any 2** questions. **Each** question carries **5** mark. (2×5=10)

21. Define sterilization and explain the physical methods of sterilization.
  22. Classify and describe the different media used for the growth of microbes.
  23. Draw and explain each part of ultrastructure of bacteria with examples.
  24. Detailed notes on preservation of microbes with suitable examples.
-