

Model Question paper

B.Sc. Degree (CBCS) EXAMINATIONS
Second Semester

Complementary Course II – Fundamentals of Microbiology-II -MB2CMT02
(for B. Sc. Biotechnology)

Time: 3 Hours

Maximum marks : 60

PART A

Answer any TEN questions
Each question carries 1 mark

1. Mac Conkey Agar medium
 2. Streak plate method
 3. Name two chemical disinfectants.
 4. Autotrophic bacteria
 5. How many ATPs are formed from one glucose molecule during ethanol fermentation?
 6. Acetyl CoA
 7. Prophage
 8. Differentiate plasmid and episome.
 9. R plasmids
 10. Bacterial transformation
 11. Cardinal temperatures for bacterial growth
 12. Bacterial chromosome
- (10x1=10)

PART B

Answer any SIX questions
Each question carries 5 marks

13. Anaerobic culture methods
 14. Bacterial Growth curve
 15. Explain the mechanism of action of any one protein synthesis inhibiting antibiotics.
 16. Chemolithotrophic bacteria and its environmental significance
 17. Bacterial enumeration techniques
 18. Glyoxalate Cycle
 19. Multiple drug resistance
 20. Types of plasmids
 21. Hfr conjugation
- (6x5=30)

PART C

Answer any TWO questions
Each question carries 10 marks

22. A). Explain the mode of action of penicillins.
B). Explain the procedure of Kirby-Bauer method of antibiotic sensitivity testing and explain its significance (5 marks each).
23. Describe the metabolic steps and energy conversions in TCA cycle.
24. Give a detailed account of lytic and lysogenic cycles of transduction.
25. Define sterilization and write briefly on sterilization methods used in bacteriology. (2x10=20)

