

(3 Hours)

Total Marks: 80

- NB: (1) Question No.1 is compulsory
(2) Attempt any three questions out of remaining five questions
(3) Each question carries equal marks
(4) Illustrate answers with sketches wherever required

- Q1. Write short note on the following 20M
a) Algae
b) Kinetics of Growth
c) Hot-air Oven
d) Differential media.
- Q2. a) What is sterilization? Explain the physical methods of sterilization. 10M
b) Describe in detail the sanitary test for coliform. 10M
- Q3. a) Describe ANY 2 techniques for isolation of pure cultures. 10M
b) Give a detailed account on nutritional requirements of bacteria. 10M
- Q4. a) State difference between batch culturing and Continuous culturing. 5M
b) Explain the use of radiation for sterilization. 5M
c) Describe in detail about Mycoplasma and a disease caused by it. 10M
- Q5. a) State and explain Koch's Postulates. 5M
b) Explain the phenomenon of Resistance mechanism in microorganisms. 5M
c) What is Antibiotic Sensitivity test? State its applications. 10M
- Q6. a) Discuss various methods of microbiological analysis of water. 10M
b) Write a note on role of microorganisms in organic matter decomposition. 10M
