

Exam. Code: 5002
Sub. Code: 10702

2046
NEP U.G. Common-Inter Disciplinary Course
Second Semester
Biotechnology
Paper: General Microbiology (Old)

Time allowed: 3 Hours

Max. Marks: 45

NOTE: Attempt five questions in all, including Question No. 1 which is compulsory and selecting two questions from each Unit.

x-x-x

- Q1. Answer the following briefly:
- Who is considered the "Father of Microbiology,"?
 - Write the principle of a compound microscope.
 - Name a disease caused by a microbial pathogen and its causal agent.
 - Give one example each of symbiosis and antibiosis.
 - Name and two physical agents used to kill microbes. (1x5=5)

UNIT-I

- Q2. a) What is the significance of studying the history of microbiology? Discuss the contributions of Robert Koch in the field of microbiology.
b) Give a comparison of Gram positive and Gram negative bacterial cell wall. (5+5=10)
- Q3. a) Draw the structure of a typical bacterial cell. What are the functions of flagella and cilia.
b) Discuss the structure of a compound microscope with reference to its main components. (5+5=10)
- Q4. a) Discuss the morphology and characteristics of fungi .
b) How bacteria grows? Discuss the growth curve of a bacteria. (5+5=10)
- Q5. Explain the following:
a) Structure and properties of viruses b) Chemotaxis and its benefits to bacteria (5+5=10)

UNIT-II

- Q6. a) Which chemical agents are used for controlling the growth of microbes? What is their Mechanism of action against microbes?
b) Explain the gut microbial flora in humans and write their advantages and disadvantages. (5+5=10)
- Q7. a) What is the principle of sterilization? Discuss the sterilization methods applicable in Microbiology laboratory?
b) What are common positive interactions existing in microbes and humans? Explain with suitable examples. (5+5=10)
- Q8. a) What is Salmonellosis? What are its causative agent and its symptoms?
b) Which physical agents effectively can be used for sterilization? Discuss. (5+5=10)
- Q9. a) Write about the types of microbial pathogens prevalent in humans.
b) Explain the principle of pasteurization and its applications in microbiology. (5+5=10)

x-x-x

