



(Pages : 2)

7927

Reg. No. : .....

Name : .....

**Third Semester B.Tech. Degree Examination, November 2009**

**(2003 Scheme)**

**03-306 : MICROBIOLOGY (B)**

Time : 3 Hours

Max. Marks : 100

**PART – A**

Answer **all** questions. **Each** question carries **4** marks.

1. What is Pasteurization ? Explain.
2. Write a brief note on the resolving power of microscope.
3. Differentiate between simple and complex media.
4. Describe the structure and function of an immunoglobulin.
5. Describe two major methods for the enumeration of microorganisms.
6. Describe the structure of a bacteriophage.
7. Differentiate between conjugation and transduction.
8. With two examples each differentiate between aerobic and anaerobic microorganisms.
9. Write a brief note on the contributions of Louis Pasteur.
10. What is 'MPN' ? Discuss its significance.

**(4×10=40 Marks)**

**P.T.O.**



## PART – B

Answer **one** question from **each** Module.

## MODULE – I

11. a) Differentiate between prokaryotes and eukaryotes.  
b) Explain the methods for the enumeration of Bacteria. **(10×2=20 Marks)**  
OR
12. Describe the principles and functions of an electron microscope. Differentiate between 'SEM' and 'TEM'. **(20×1=20 Marks)**

## MODULE – II

13. How is energy produced by Aerobic Process ? Discuss the pathways involved. Describe the model of 'ATP' Synthesis. **(20×1=20 Marks)**  
OR
14. Describe the structure of DNA. What are the processes involved in its Biosynthesis ? Explain. **(20×1=20 Marks)**

## MODULE – III

15. a) What are Antibiotics ? Discuss their mode of Action.  
b) Discuss the spoilage of dairy products and the ways to reduce it. What are the organisms responsible ? **(10×2=20 Marks)**  
OR
16. How are diseases transmitted through drinking water ? How will you assess the quality of drinking water ? Name any three water borne diseases and their causal organisms. **(20×1=20 Marks)**
-