

GUJARAT TECHNOLOGICAL UNIVERSITY
B.Pharm - SEMESTER- V • EXAMINATION – SUMMER -2020

Subject Code: BP504TP**Date: 29-10-2020****Subject Name: Pharmaceutical Microbiology****Time: 2:30 PM TO 5:30 PM****Total Marks: 80****Instructions:**

1. Attempt any five questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

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|-------------|--|-----------|
| Q.1 | (a) How is preparation of microbial specimen done for compound microscopy? | 06 |
| | (b) Write a brief note on (any one) | 05 |
| | i. Phase contrast Microscopy | |
| | ii. Fluorescence Microscopy | |
| | iii. Electron Microscopy | |
| | (c) What are Differential stains? Write on principle and procedure citing a suitable example. | 05 |
| Q.2 | (a) Draw a labeled diagram of a Prokaryotic cell. | 06 |
| | (b) Write on (any two) | 05 |
| | i. Cell wall of Gram positive and Gram negative cell | |
| | ii. Endospores | |
| | iii. Ribosomes | |
| | (c) Give differences between a Eukaryotic cell and a Prokaryotic cell. | 05 |
| Q.3 | (a) Write on different Nutrient media in details. | 06 |
| | (b) Give methods of Preservation of bacterial cultures. | 05 |
| | (c) Explain methods of Direct measurement of microbial growth. | 05 |
| Q.4 | (a) Enumerate Physical methods of microbial control and write on Autoclaving with a labeled diagram.. | 06 |
| | (b) Classify Disinfectants. Enumerate their methods of evaluation. Write on Ethylene oxide as chemo sterilizer. | 05 |
| | (c) Write in brief on (any one) | 05 |
| | i. Filtration sterilization | |
| | ii. Radiation sterilization | |
| Q.5 | (a) Write in defects (any one) | 06 |
| | i. Viruses | |
| | ii. Classification of Fungi | |
| | (b) Give objective and Pharmacopoeial method for Sterility testing of Water for Injection. | 05 |
| | (c) Write on various methods of Microbiological Assay explaining standardization of an antibiotic. | 05 |
| Q. 6 | (a) Write on : Laminar flow equipments | 06 |
| | (b) Write on : Different sources of contamination | 05 |
| | (c) Write on : Clean area classification | 05 |
| Q.7 | (a) What are called Microbial Spoilages? Give their types. Write on factors affecting spoilage of pharmaceutical products by microbes. | 06 |
| | (b) Differentiate between a Bacteriostatic and a Bacteriocidal agent giving suitable examples. | 05 |
| | (c) Write on Biochemical tests for identification and classification of bacteria. | 05 |
