

GUJARAT TECHNOLOGICAL UNIVERSITY
B.Pharm - SEMESTER-VI • EXAMINATION – SUMMER-2017

Subject Code: 2260002

Date: 01/05/2017

Subject Name: Pharmaceutical Microbiology & Biotechnology- II

Time: 10.30 AM to 1.30 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) Describe scope of Biotechnology & its applications in pharmacy. | 06 |
| | (b) Explain following Humulin and Streptokinase. | 05 |
| | (c) Write a detail note on mutation . | 05 |
| Q.2 | (a) Explain: infection, immunity & microbial resistance with examples. | 06 |
| | (b) Draw the diagram of fermentor. Write functions of its various parts. | 05 |
| | (c) Sketch the flow diagrams for recovery & purification of streptomycin and riboflavin from broth . | 05 |
| Q.3 | (a) Describe widal, ELISA diagnostic tests based on immunological principle. | 06 |
| | (b) Discuss importance of sterility testing in pharmaceuticals. How surgical dressings sterility test is performed? | 05 |
| | (c) Write in detail the fermentative productions of ethanol. | 05 |
| Q.4 | (a) Enlist various sources of preparing viral vaccines. Write production method of rabis vaccine. | 06 |
| | (b) Describe ideal properties of plasma substitutes. Write detail note on dextran. | 05 |
| | (c) Describe antigen-antibody reactions with examples. | 05 |
| Q.5 | (a) Write methods for collection & storage of whole human blood. Draw flow chart of human normal immunoglobulin preparation. | 06 |
| | (b) Describe the methods for Standardization & Screening of soil for organisms producing antibiotics. | 05 |
| | (c) Enlist various methods for microbiological assay. Write a note on microbiological assay of vitamin B ₁₂ . | 05 |
| Q. 6 | (a) Explain MoAb production and biochemical principle involved in hybrid selection. | 06 |
| | (b) Write a detail note on Mutagenic agents. | 05 |
| | (c) What is gene cloning? Write a process of gene cloning with examples. | 05 |
| Q.7 | (a) Differentiate between i) Active Vs passive immunity ii)Exotoxin Vs Endotoxin | 06 |
| | (b) Write a detail note on new generation vaccines. | 05 |
| | (c) Write a note on protoplast Fusion. | 05 |
