

GUJARAT TECHNOLOGICAL UNIVERSITY

B.PHARM - SEMESTER- 6 EXAMINATION – WINTER -2019

Subject Code: 2260002
Date: 02-12-2019
Subject Name: Pharmaceutical Microbiology & Biotechnology-II
Time: 02:30 PM TO 05:30 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) | Give the flow sheet of tetracycline production, isolation and recovery by fermentation process | 06 |
| | (b) | Enumerate different types of mutations. Explain in detail any one of them. | 05 |
| | (c) | Briefly explain the difference between Generalized and Specialized Transduction. | 05 |
| Q.2 | (a) | Discuss in detail tuberculin test and schick test | 06 |
| | (b) | Write note on secondary defense mechanism. | 05 |
| | (c) | Briefly explain the activase enzymes. | 05 |
| Q.3 | (a) | What is monoclonal antibody? Discuss the production of monoclonal antibodies. | 06 |
| | (b) | Write method for Collection, processing and storage of human fibrinogen Fibrinogen | 05 |
| | (c) | Explain the Replica Plating Technique to detect and isolate mutants. | 05 |
| Q.4 | (a) | What is toxoids? Describe preparation, standardization and storage of toxoids containing vaccines. | 06 |
| | (b) | Write a detail note on new generation vaccines with respect to AIDS and Malaria. | 05 |
| | (c) | What is Gene cloning? Give its importance. | 05 |
| Q.5 | (a) | What is protoplast fusion? Explain the methods of protoplast fusion | 06 |
| | (b) | Write a note on human normal immunoglobulin | 05 |
| | (c) | Give the comparison between Western , Northern and Southern blot technique | 05 |
| Q.6 | (a) | Explain the fermentation process of alcohol production. | 06 |
| | (b) | Explain microbiological assay of vitamin and amino acid. | 05 |
| | (c) | What is sterility testing? Explain the sterility testing of surgical product | 05 |
| Q.7 | (a) | Explain detailed production and recovery of citric acid. | 06 |
| | (b) | State differences between cellular and humoral immunity. | 05 |
| | (c) | Write note on culture media used in sterility testing. | 05 |
