

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B. Pharm. - SEMESTER-6 • EXAMINATION – SUMMER -2018

Subject Code: 2260002**Date: 05/05/2018****Subject Name: Pharmaceutical Microbiology & Biotechnology - II****Time: 10:30 AM TO 01:30 PM****Total Marks: 80****Instructions:**

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

- Q.1** (a) Explain microbiological assay of Vitamin B₁₂. **06**
(b) Discuss the isolation & recovery of Fermentation products. **05**
(c) Enlist methods for sterility testing. Discuss direct inoculation method. **05**
- Q.2** (a) Differentiate the sera and vaccines with examples. **06**
(b) Write short notes on i) Streptokinase ii) Monoclonal antibodies **05**
(c) Write in detail the fermentative productions of ethanol. **05**
- Q.3** (a) Describe the methods for Standardization & Screening of soil for organisms producing antibiotics. **06**
(b) Give the flow chart for the production of vitamin B₁₂. **05**
(c) What do you understand by the term mutagenesis? Explain Radiation as Mutagen. **05**
- Q.4** (a) Describe scope of Biotechnology & its applications in pharmacy. **06**
(b) Describe ideal characteristics of plasma substituent. Explain Dextran as a plasma substituent. **05**
(c) Write a note on mutation and its consequences. **05**
- Q.5** (a) Explain MoAb production and biochemical principle involved in hybrid selection. **06**
(b) Write a note on recombinant DNA technology. **05**
(c) Define Immunity and Classify it with examples. **05**
- Q.6** (a) Write a note on protoplast Fusion. **06**
(b) How is BCG vaccine prepared & sterilized? **05**
(c) Why ELISA and Widal tests are performed? Explain the Tuberculin test. **05**
- Q.7** (a) Describe antigen-antibody reactions with examples. **06**
(b) Sketch the flow diagrams for recovery & purification of streptomycin and riboflavin from broth. **05**
(c) Give short notes on Immunoglobulins. **05**
