

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B.PHARM – SEMESTER – 6- EXAMINATION –WINTER - 2018**Subject Code:2260002****Date: 27/11/2018****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.**

- Q.1** (a) Explain the different parts of a Fermentor with their functions with a labeled diagram. **06**
(b) Write a note on components of a fermentation media. **05**
(c) Explain in brief the production of streptomycin by fermentation process **05**
- Q.2** (a) Describe the primary defensive mechanisms of the body in brief. **06**
(b) Explain the process of making BCG vaccine with a flow diagram **05**
(c) Define and classify Immunity with suitable examples **05**
- Q.3** (a) Describe the production of monoclonal antibodies by hybridoma technology **06**
(b) Describe techniques of protoplast fusion. **05**
(c) Describe in brief mechanisms of Gene Transfer **05**
- Q.4** (a) Discuss the principle and method of microbiological assay of antibiotics by cup plate method **06**
(b) Differentiate between: (i) Active and passive Immunity (ii) Vaccine and Sera **05**
(c) Describe the structure of an antibody. Classify types of antibodies along with their function. **05**
- Q.5** (a) Describe the process of recombinant DNA technology with a suitable diagram. What are restriction enzymes? **06**
(b) Describe the production of Humulin(Human Insulin) by recombinant DNA technology **05**
(c) Write a note on Vectors used in recombinant DNA technology **05**
- Q. 6** (a) Define Mutation. Classify and define types of mutation. **06**
(b) Discuss the process of collection and storage of whole human blood **05**
(c) Discuss causes of mutation. **05**
- Q.7** (a) Explain the principle and method of sterility testing. Which Pharmaceuticals are required to be tested for sterility? **06**
(b) Write a note on Dried Human Plasma. **05**
(c) Describe in brief Antigen antibody reactions **05**
