

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B.Ph. – SEMESTER 6 • EXAMINATION – SUMMER-2018**Subject Code:260002****Date:03/05/2018****Subject Name: Pharmaceutical Microbiology & Biotechnology II****Time: 10:30am to 01:30pm****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) Differentiate i) Active and Passive immunity ii) Exo and Endotoxin. **06**
(b) Write short notes on Diphtheria Toxoidal preparation. **05**
(c) Define: Immunity, Vaccine, Sera, Attenuation, Virulence **05**
- Q.2** (a) With a neat flow chart explain the process of Penicillin fermentation. **06**
(b) Write short notes on various carbohydrate and nitrogen sources for fermentation process. **05**
(c) Give a brief account on primary and secondary screening. **05**
- Q.3** (a) Enumerate the methods of recombinant DNA technology. **06**
(b) Write the method of preparation of Activase using r-DNA technology. **05**
(c) Brief the historical development in the field of biotechnology. **05**
- Q.4** (a) Explain various techniques of Enzyme immobilization. **06**
(b) Discuss types of mutations. **05**
(c) How mutants are isolated? **05**
- Q.5** (a) Discuss the steps involved in Monoclonal antibody production. **06**
(b) Write short notes on DNA replication. **05**
(c) Mention the applications of Monoclonal antibodies. **05**
- Q. 6** (a) How Viral Vaccines are prepared? **06**
(b) Classify immunity with suitable examples. **05**
(c) Write short notes on diagnostic preparations. **05**
- Q.7** (a) Draw a neat labeled diagram of fermentor and functions of the different parts in detail. **06**
(b) Write short notes on vitamin B₂ fermentative production. **05**
(c) Explain antigen antibody reactions. **05**
