

Seat No: _____

Enrollment No: _____

PARUL UNIVERSITY
FACULTY OF PHARMACY
B. Pharm. Winter 2018-19 Examination

Semester: 4

Subject Code: 08101253

Subject Name: Pharmaceutical Microbiology

Date: 01/11/2018

Time: 02:00pm to 05:00pm

Total Marks: 75

Instructions:

1. Figures to the right indicate full marks.
2. Make suitable assumptions wherever necessary.

Q.1 Essay type Questions. (Any 2 out of 3) (10 marks each) (20)

1. Define Sterilization. Explain its types. Give detail account with a neat and well labelled sketch of Autoclave.
2. Discuss the different methods for isolation of pure culture.
3. What is the principle of sterility test? What are methods as per IP to conduct sterility test ? Explain the method of direct inoculation.

Q.2 Short Essay type Questions. (Any 7 out of 9) (5 marks each) (35)

1. Define pharmaceutical microbiology. Describe its scope in brief.
2. Write a note of antigen antibody reactions.
3. Explain cup plate method of microbiological assay of antibiotics.
4. Write a note on ELISA
5. Enumerate methods for evaluation of disinfectants. Describe Rideal-Walker test.
6. Describe biological indicators for monitoring sterilization processes.
7. Draw a neat labeled sketch of bacterial cell.
8. Discuss microbiological assay of Cyanocobalamin.
9. Give merits and demerits of Phenol coefficient.

Q.3 Answer in short. (2 marks each) (20)

1. Give examples of few marketed disinfectants
2. What are different preservation techniques for microorganisms?
3. Give the difference between Yeast and Mould structures.
4. Give the difference between gram positive and gram negative bacteria.
5. Define the following terms: D value, Z value, F value.
6. Write about antigen, antibody, haptens and Interferons.
7. Give the test organisms for microbiological assay of Streptomycin, Kanamycin, Penicillin, Tetracyclin.
8. Enlist any two methods of viable count of bacteria.
9. Draw the structure of *Candida albicans* and label its parts.
10. Enlist the factors that affect disinfection process.