

PARUL UNIVERSITY
FACULTY OF PHARMACY
Pharm.D April - 2019 Examination

Year: 2**Subject Code: 08207202****Subject Name: Pharmaceutical Microbiology****Date: 18/04/2019****Time: 2:00 pm to 5:00 pm****Total Marks: 70****Instructions**

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

Q.1 Essay Type Questions. (any 2 out of 3) (15 Mark Each) (30)

1. Define sterilization. Explain its types. Give detail account with a neat and well labeled 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 4 out of 5) (5 Mark Each) (20)

1. Write a note on ELISA.
2. Write a note of antigen antibody reactions.
3. Explain cup plate method of microbiological assay of antibiotics.
4. Describe in brief life cycle of malaria parasite.
5. Give detail about standardization of vaccines and sera.

Q.3 Short Answers. (2 Mark Each) (20)

1. Give the difference between gram positive and gram negative bacteria
2. Define the following terms: D value, Z value, F value, Bioburden
3. Write about antigen, antibody, haptens and interferons.
4. Give the test organisms for microbiological assay of streptomycin, kanamycin, penicillin, tetracycline.
5. Enlist any two methods of viable count of bacteria.
6. What are different preservation techniques for micro-organisms?
7. Enlist the factors that affect disinfection process.
8. Explain specific and non-specific defence mechanism by giving examples.
9. Give example of few marketed disinfectants
10. Draw the structure of candida albicans and label its parts.