

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

Year: 2**Subject Code: 08207202****Subject Name: Pharmaceutical Microbiology****Date: 26/11/2019****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. Explain in detail: i) Bacterial growth curve.
ii) Factors affecting growth of micro-organisms
iii) Cultivation of microbes.
2. Define: Immunity. Describe types of immunity and explain antigen-antibody reaction with its application in detail.
3. Define: Sterilization. Describe various factors affecting sterilization. Explain dry heat sterilization with Hot Air Oven in detail.

Q.2 Short Essay Type Questions. (any 4 out of 5) (5 Mark Each) (20)

1. Describe in detail: Differential staining.
2. Describe factors affecting rate of disinfection.
3. Define: Microbiology. Write its scope and applications in pharmaceutical sciences.
4. Describe in detail: (1) Western Blot test (2) Southern Blot test
5. Write a note on bacteria with its classification.

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

1. Write principle of Cup-Plate method for microbiological assay of antibiotics.
2. What is Parasitic hepatitis? Enlist parasites responsible for the same.
3. Explain Rideal-Walker test for evaluation of disinfectant.
4. Comment and Justify: 100% ethanol is not used as disinfectant.
5. Write a note on spirochaetes.
6. Enlist methods used for determination of total number of living and dead microbes count.
7. Differentiate Capsule and Spore.
8. Comment and Justify: All pink colour bacteria are gram negative after gram staining.
9. What are the signs and symptoms of tuberculosis?
10. Write principle of microbiological assay of vitamins.