

VINAYAKA MISSION'S RESEARCH FOUNDATIONS
(Deemed to be University) , SALEM

Pharm.D DEGREE EXAMINATION - September 2021
Second Year

PHARMACEUTICAL MICROBIOLOGY

Time: Three hours

Maximum: 70 marks

I. Write essays on any **TWO** questions: (2 x 15 = 30)

1. Define and classify Immunity. Describe the principles of natural immunity. Add a note on Antigen – Antibody reaction.
2. Explain in detail about Microbiological assay of Antibiotics by Cup plate and Turbidimetric methods.
3. Write in details about various culture media used for the growth of bacteria and fungi. Add a note on maintenance of laboratory culture.

II. Write short answers on any **SIX** questions: (6 x 5 = 30)

4. Write a detailed note on spirochetes.
5. Discuss about sterilization using Autoclave.
6. What are the merits and demerits of Dry heat sterilization?
7. Brief about sterility test.
8. Describe the Elisa test.
9. Discuss the methodology involved in the Microbial assay of Vitamin B12.
10. Write the importance of toxoids in immunization programme.
11. Describe about Booster dose in the immunization.

III. Write short notes on any **FIVE** question: (5 x 2 = 10)

12. What are Bacteriophages?
13. Classify fungi based on the morphology.
14. What is differential staining?
15. What is QBC test?
16. Write the chemical nature of antigen.
17. What are Disinfectants? Give examples.
