

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

**Pharm.D DEGREE EXAMINATION - August 2018**  
**Second Year**

**PHARMACEUTICAL MICROBIOLOGY**

Time: Three hours

Maximum: 70 marks

- I. Write essays on any **TWO** questions: (2 x 15 = 30)
1. Discuss about the official methods of sterility testing of pharmaceutical preparations and write about the mode of action, applications and limitations of filtration sterilization.
  2. Define pure culture and discuss various methods of isolation of a pure culture.
  3. Describe the morphology and reproduction in molds. Write notes on classification of fungi.
- II. Write short answers on any **SIX** questions: (6 x 5 = 30)
4. Explain various stages that are involved in bacterial growth curve.
  5. Define immunity and its classification.
  6. What is the causative organism of typhoid? Explain its symptoms, mode of transmission and its treatment.
  7. Quantitative measurement of bacterial growth.
  8. Write a note on Elisa test.
  9. Simple staining and differential staining.
  10. Dry heat sterilization.
  11. What are the advantages of microbiological assays of antibiotics?
- III. Write short notes on any **FIVE** question: (5 x 2 = 10)
12. Difference between dry heat and moist heat sterilization techniques.
  13. Classify bacteria based on their oxygen requirements.
  14. Write the causative organism, route of infection and main symptoms for tuberculosis.
  15. Immunization programme and importance of booster dose.
  16. Difference between bactericidal and bacteriostatic agents.
  17. Write briefly about phagocytosis.

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