

**VINAYAKA MISSION'S RESEARCH FOUNDATION
(DEEMED TO BE UNIVERSITY), SALEM**

**B.PHARM. DEGREE EXAMINATION – JANUARY 2020
Third Semester**

PHARMACEUTICAL MICROBIOLOGY

Time : Three hours

Maximum: 75 marks

I. Write essays on any **TWO** questions: (2 x 10 = 20)

1. Explain the structure and reproduction of fungi.
2. Discuss the various types of sterilization process with suitable examples.
3. Define disinfection, classify them with examples and write their mechanism of action.

II. Write short answers on any **SEVEN** questions: (7 x 5 = 35)

4. Microbial counting techniques.
5. Pharmacopoeial designs of microbiological assay of antibiotics.
6. Design and applications of dark field microscopy.
7. Explain briefly the bacterial growth curve.
8. Methods of identification of bacteria.
9. Write a note on different sources and control of contamination.
10. Phenol co-efficient tests.
11. Types of animal cell cultures.
12. IMViC tests.

III. Write short notes on : (10 x 2 = 20)

13. What is pasteurization?
14. Differentiate autotrophs and heterotrophs.
15. List some sterile pharmaceutical products.
16. Classification of microorganism based on temperature.
17. Culture media for animal cells.
18. Mention parts of autoclave.
19. Example of antimicrobial agents.
20. Give any two examples of Acid Fast organisms.
21. What is EtO sterilization?
22. Define primary cell culture.
