

QP Code: 323006

Reg. No.....

**Third Semester B. Pharm Degree Supplementary Examinations  
December 2020**

**Pharmaceutical Microbiology**

**(2017 Scheme)**

**Time: 3 Hours**

**Max. Marks: 75**

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Draw table/diagrams/flow charts wherever necessary*

**Essays**

**(2x10=20)**

1. Enumerate and explain the methods to determine viable and total count of bacteria.
2. Explain the principle, procedure, merits and demerits of sterilization by gamma radiation.

**Short Notes**

**(7x5=35)**

3. Explain bacterial growth curve.
4. Explain IMViC tests for identification of bacteria.
5. Explain the cultivation of anaerobes.
6. Electron microscopy and phase contrast microscopy.
7. Explain the method of reproduction of bacteriophages with diagram.
8. Enlist the factors affecting disinfectant activity and explain any three factors in detail.
9. Sources of contamination in aseptic area and the methods for their prevention.

**Answer Briefly**

**(10x2=20)**

10. Types of microbial spoilage in pharmaceutical products
11. Preservation methods for pure culture of bacteria
12. Sterilization method for oily injections and enzyme solutions.
13. Zone of inhibition and its significance.
14. What is roll tube method
15. What are Psychrophiles
16. Classification of virus.
17. Steps involved in animal cell culture.
18. Define Rideal-Walker co-efficient. Write the formula for calculation.
19. List the contributions of Paul Ehrlich and Edward Jenner to the field of microbiology.

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