



Paper id: 252214

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Subject Code: BP303T

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BPHARM
(SEM III) THEORY EXAMINATION 2024-25
PHARMACEUTICAL MICROBIOLOGY

TIME: 3 HRS**M.MARKS: 75**

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt all questions in brief.

10 x 2 = 20

a.	Define sterilization and disinfection.
b.	What are autoclaves? Mention their working temperature and pressure.
c.	Name any two gram-positive and two gram-negative bacteria.
d.	Differentiate between exotoxins and endotoxins.
e.	What is microbial growth curve? Name its phases.
f.	Give examples of mechanical and chemical methods of sterilization.
g.	What is the role of HEPA filters in microbiology labs?
h.	Write two differences between fungi and bacteria.
i.	Define Gram's staining and its significance.
j.	What are sterility indicators? Give two examples.

SECTION B

2. Attempt any two parts of the following:

2 x 10 = 20

a.	Describe various methods of sterilization used in the pharmaceutical industry. Add a comparative note on their advantages and limitations.
b.	Describe in detail the sterility testing of solid, liquid, and ophthalmic pharmaceutical products as per IP, BP, and USP guidelines.
c.	Discuss the sources of contamination in aseptic areas and elaborate on the methods to control them.

SECTION C

3. Attempt any five parts of the following:

7 x 5 = 35

a.	Explain the principle, construction, and working of the Laminar Air Flow.
b.	Describe various methods used for isolation of pure cultures.
c.	Describe different sources and types of microbial contaminants in pharmaceutical products.
d.	Describe the various stages in the bacterial growth curve with a neat diagram.
e.	Explain the classification and mode of action of disinfectants used in the pharmaceutical industry.
f.	Discuss the different types of culture media with examples.