PAPER ID-311715

Roll No:

BPHARM
(SEM III) THEORY EXAMINATION 2025-26
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 phenol coefficient
b.	Suggest the principle of moist heat sterilization
c.	Justify two applications of industrial microbiology in health care sector
d.	What are the differences between antiseptics and disinfectants?
e.	What is Z value
f.	Justify the mode of action of formaldehyde in sterilization.
g.	What are the various types of spoilage?
h.	Explain biological indicator.
i.	Mention the role of mordant in gram staining?
j.	Suggest the principle of working of HEPA Filter.

SECTION B

2. **Attempt any *two* parts of the following:**   **2 x 10 = 20**

a.	Discuss in detail the various steps involved in gram staining along with the principles involved in it.
b.	Explain in detail the process of assay of an antibiotic by cup plate method as per IP
c.	How will you carry out sterility test of ophthalmic preparation as per IP.

SECTION C

3. **Attempt any *five* parts of the following:**   **7 x 5 = 35**

a.	Explain the functioning of autoclave with the help of a neat diagram.
b.	Explain the various process of replication and reproduction of a virus
c.	Discuss the various applications of cell cultures in pharmaceutical industry and research.
d.	Narrate the various phases of bacterial growth
e.	Discuss the various scopes of microbiology in the current context
f.	Classify clean area. How will you design an aseptic room in a laboratory?
g.	How will you carry out evaluation of disinfectant in your laboratory?