



PAPER ID-311641

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Subject Code: BP303T

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BPHARM
(SEM III) THEORY EXAMINATION 2023-24
PHARMACEUTICAL MICROBIOLOGY

TIME: 3HRS**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.	What are prokaryotes and eukaryotes? Give one example of each.
b.	Enlist the factors affecting the microbial spoilage of pharmaceutical products.
c.	Give difference between Antiseptic and Disinfectant with example.
d.	Elucidate about clean area classification according to ISO.
e.	Comment on co-relation between D-value and Z-value in sterilization.
f.	Explicate about primary cell culture.
g.	Explain about DOP test of HEPA filter.
h.	Admit all the physical parameter required for bacterial growth.
i.	How will you explain about discovery of Penicillin?
j.	Give a annotate note on microbiological assay of amino acid.

SECTION B

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

a.	Expound the physical methods of sterilization with principle, procedure & applications.
b.	Explain the Ultra structure of bacteria and give its brief morphological classification.
c.	Discuss general procedure for animal cell culture. Write any two application of cell culture in pharmaceuticals and research.

SECTION C

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

a.	Why do we need to preserve the microbes? Explain any two methods for preservation.
b.	Detailed note on sources and types of microbial contaminants in pharmaceuticals.
c.	Write about gram staining in detail with its principle and procedure.
d.	Define virus. Give methods of cultivation of virus in details.
e.	Illustrate about methods for sterility testing of pharmaceutical products according to IP.
f.	Discuss about the construction and design of aseptic room in proper details.
g.	Elaborate different methods used for microbiological assay of antibiotics or vitamins.