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**B PHARM**  
**(SEM-III) THEORY EXAMINATION 2020-21**  
**PHARMACEUTICAL MICROBIOLOGY**

*Time: 3 Hours**Total 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.	Differentiate between Pharmaceutical and Medical Microbiology.
b.	Give the difference between Prokaryotic and Eukaryotic cell.
c.	How will you define cell culture?
d.	Write any four names of equipments for sterilization.
e.	Give the contribution of Louis Pasteur in the field of Microbiology.
f.	Enlist types of Microscopy.
g.	Define Mechanical Sterilization with example.
h.	Give the difference between bacteriostatic and bactericidal.
i.	Enumerate the sources of contamination in aseptic area.
j.	What is microbial spoilage?

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

a.	Give the morphological classification of bacteria with suitable examples and diagram.
b.	Write the mechanism, procedure and advantages of gram staining technique.
c.	Discuss the applications of cell culture in pharmaceuticals and research.

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

a.	Describe the bacterial growth curve with all phases.
b.	Discuss the methods for prevention of contamination in aseptic area.
c.	Give the principle, working and application of moist heat sterilizer.
d.	What are the factors influencing disinfection?
e.	Discuss the factors affecting microbial spoilage of pharmaceutical products.
f.	Describe different types of sterility indicators for evaluation of sterilization.
g.	How to preserve pharmaceutical products with the help of antimicrobial agent?