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B PHARM
(SEM III) THEORY EXAMINATION 2022-23
PHARMACEUTICAL MICROBIOLOGY

Time: 3 Hours**Total Marks: 75****Note:** 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 is primary cell culture?
- (b) Classify clean area for sterile preparation.
- (c) Give the name of biological indicator for moist heat sterilization.
- (d) Give the name of mordant used in Gram Staining.
- (e) What are autotrophes and heterotrophes?
- (f) Define the term bacterostatic and bactericidal.
- (g) Give the name of microorganism used in challenge test.
- (h) Write the name of methods for cultivation of anaerobes.
- (i) What is microbial assay?
- (j) Define microbial spoilage of pharmaceutical products.

SECTION B

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

- (a) Discuss about the history, branches and scope of microbiology with special contribution of Louis Pasteur.
- (b) Discuss the principle, procedure and application of physical and chemical sterilization.
- (c) Explain the method for standardization of erythromycin.

SECTION C

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

- (a) Write a detail note on biochemical test for bacterial identification.
- (b) Explain the replication and cultivation of virus.
- (c) Discuss the Working, Construction and efficiency test procedure for laminar air flow cabinet.
- (d) Explain working, construction and application of electron microscope.
- (e) What is sterility testing of liquids as per I.P.?
- (f) Explain the types and source of microbial spoilage.
- (g) What is cell culture? Give the types, procedure and application of cell culture in Pharmaceutical industry.