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Paper Id: | 5 | 0 | 4 | 9 | **Roll No:** | | | | | | | | | | |

B. Pharm

(SEM 5) THEORY EXAMINATION 2017-18

(PHARMACEUTICAL & FOOD MICROBIOLOGY)

Time: 3 Hours ***Total Marks: 100***

Notes:

SECTION A

1. Attempt *all* questions in brief. 2 x10 = 20

a. Differentiate between autotrophs and heterotrophs.
b. Define probiotics with example.
c. What do you mean by antimicrobial preservatives?
d. Give any two difference between Optical & Electron microscopy.
e. Describe briefly nosocomial infection.
f. Write in short between the differences of prokaryotic & eukaryotic cell.
g. What do you mean by aseptic area in microbiological study?
h. Write any two differences between Gram-positive & Gram-negative bacteria.
i. Define sterilization.
j. Write any(**two**) difference between bacteria & virus

SECTION B

2. Attempt any *three* of the following: 10 x 3 = 30

a. Classify the bacteriological filters which being used to sterilize the fluids.
b. Describe food spoilage with types in detail.
c. Discuss in detail about microbiological assays of any one-
Vitamin B_{12} (or) Erythromycin.
d. Discuss in detail about principle, working and usage of autoclave.
e. Differentiate between antiseptic and disinfectants.

SECTION C

3. Attempt all part of the following: 5 x 2 = 10

(a) Describe in detail about method of determination of preservative efficacy.
(b) Enumerate the bacterial cell with neat labelled diagram.

4. Attempt all part of the following: 5 x 2 = 10

(a) Discuss membrane filtration method for test of sterility.
(b) Discuss clean room specification.

5. Attempt the following: 10 x 1 = 10

(a) Describe the principle, working, limitation of electron microscope Diagrammatically.

6. Attempt any one of the following: 10 x 1 = 10

(a) Write the procedure of sterility testing as per I.P
(OR)
(b) Discuss the facilities required for designing aseptic area.

7. Attempt the following: 10 x 1= 10

(a) What do you understand by factory hygiene and how you can control Microbial contamination during manufacturing of pharmaceutical products?

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