

II B. Pharmacy I Semester Regular/Supplementary Examinations, March - 2021
PHARMACEUTICAL MICROBIOLOGY

Time: 3 hours

Max. Marks: 75

- Note: 1. Question Paper consists of three parts (**Part-I, Part-II & Part-III**)
 2. Answer ALL (Multiple Choice) Questions from **Part-I**
 3. Answer any **TWO** Questions from **Part-II**
 4. Answer any **SEVEN** Questions from **Part-III**

PART - I

1. (i) What is MIC? (1M)
 - a. Microbial isolation count
 - b. Minimum inhibitory count
 - c. Minimum inhibitory concentration
 - d. Minimum inhibitory content
- (ii) Which of the following is not true for plasmid? (1M)
 - a. contain genes necessary for survival and development of antibiotic resistance
 - b. Single stranded circular DNA material
 - c. It facilitates horizontal gene transfer between hosts
 - d. It is capable of autonomous replication
- (iii) Ergosterol is found in the cells of (1M)
 - a. Escherisia b. Staphylococcus c. Candida d. Pseudomonas
- (iv) is extensively used in Gas sterilization method (1M)
 - a. ethanol b. ethyleneoxide c. sulfurdioxide d. Chlorine
- (v) After Acid fast staining, Mycobacterium appears in color (1M)
 - a. red b. blue c. green d. yellow
- (vi) is a acidic dye. (1M)
 - a. Eosin b. Methylene blue c. Safranin d. crystal violet
- (vii) HEPA filters remove particles of diameter greater than (1M)
 - a. 10 μ M b. 6 μ M c. 1 μ M d. 0.3 μ M
- (viii) Gonorrhoea is caused by (1M)
 - a. Fungus b. Bacteria c. Virus d. Algae
- (ix) is an antibiotic. (1M)
 - a. Triclosan b. thiomersal c. iodine d. fusidic acid
- (x) The major constituents in cell wall of Gram +ve bacteria are (1M)
 - a. Fats b. Aminoacids c. Polysaccharides d. Polypeptides
- (xi) is used as decolorizing agent in Gram's staining. (1M)
 - a. Chloroform b. Ethanol c. Water d. Hexane
- (xii) is the recommended medium for growing Mycobacterium (1M)
 - a. Blood agar b. Chocolate agar c. Mueller Hinton agar d. LJ medum
- (xiii) OADC supplementation is regularly used in cell culture media. Here, A means... (1M)
 - a. Ascorbic acid b. Albumin c. Acetic acid d. Arginine
- (xiv) Tetrahymena pyriformis used for the assay of (1M)
 - a. Pantothenic acid b. Vitamin B12 c. Vitamin B3 d. Vitamin A

- (xv) The utilization of oxygen to drive the synthesis of ATP is called as..... (1M)
a. Photolysis b. Photophosphorylation c. Photosynthesis d. Respiration
- (xvi) The organisms which can grow only in presence of oxygen are called as (1M)
a. Aerobes b. Anaerobes c. Facultative anaerobes d. Strict aerobes
- (xvii) 3D image can be obtained from microscope. (1M)
a. Microscope b. compound c. electron d. Stereom
- (xviii) Alkaline peptone water is used as an enrichment media for..... (1M)
a. Vibrio b. Aspargillus c. Mycobacterium d. Candida
- (xix) Cary Blair medium is a very good example of Media. (1M)
a. minimal b. Differential c. growth d. transfer
- (xx) is a bactericidal drug. (1M)
a. Erythromycin b. Penicillin c. Tetracyclins d. Chromphenical

PART -II

2. a) State a note on simple microscope. (5M)
b) What is differential staining method? write its significance. (5M)
3. a) Explain in detail on filtration as a Sterilization method. (5M)
b) Write a note on preservation methods used in pharmaceutical formulations. (5M)
4. a) Discuss the design and significance of clean room. (5M)
b) Write a detailed account on sterility testing of normal saline. (5M)

PART -III

5. Compare and contrast cell membrane of bacteria and fungi. (5M)
6. What are indicator media? write their importance. (5M)
7. Discuss in brief on bacterial growth curve. (5M)
8. Write in brief on procedure involved in evaluation of microbial stability of pharmaceutical products. (5M)
9. Write the applications of cell culture technology in pharmaceutical industry. (5M)
10. What is an aseptic area? Give a layout of clean room. (5M)
11. Classify disinfectants with examples. Write mechanism and uses of any two agents. (5M)
12. Outline the methods used for preservation of pure cultures. (5M)
13. Explain the method used for microbial assay of penicillin. (5M)