

II B. Pharmacy I Semester Supplementary Examinations, May - 2019
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) Nagler's reaction is used for detection of (1M)
 (a) Streptococci (b) Clostridia (c) Bacillus (d) None of these
- (ii) For effective sterilization in an autoclave the temperature obtained is (1M)
 (a) 50°C (b) 100°C (c) 120°C (d) 180°C
- (iii) Agar is obtained from..... (1M)
 (a) Brown algae (b) Red algae (c) Green algae (d) Blue-green algae
- (iv) The image observed with eye obtained in a compound microscope is..... (1M)
 (a) Real (b) Virtual (c) Real inverted (d) Virtual inverted
- (v) Father of microbiology is..... (1M)
 (a) Louis Pasteur (b) Lister (c) Antonie vanLeeuwenhock (d) Robert Koch
- (vi) Tuberculosis is a (1M)
 (a) Water borne disease (b) Air borne disease
 (c) Food borne disease (d) Arthropod borne disease
- (vii) The main feature of prokaryotic organism is (1M)
 (a) Absence of locomotion (b) Absence of nuclear envelope
 (c) Absence of nuclear material (d) Absence of protein synthesis
- (viii) Nitrites are oxidized to nitrates by the microorganism..... (1M)
 (a) Nitrosomonas (b) Nitrosococcus (c) Nitrobacter (d) Azatobacter
- (xi) bacteria uses chemical compounds as a source of energy (1M)
 (a) Phototrophs (b) Autotrophs (c) Chemotrophs (d) Chemolithotroph
- (x) Vitamin function as..... (1M)
 (a) Co-enzymes (b) Co-meolecules
 (c) Building blocks of cell (d) None of these
- (xi) The number of generations per hour in a bacteria is..... (1M)
 (a) Growth rate (b) Generation time (c) Sigmoid curve (d) None of these
- (xii) Condensation of light in light Microscope is done by..... (1M)
 (a) Objective (b) Condensor (c) Ocular (d) All of these
- (xiii) Minimum growth temperature is..... (1M)
 (a) The growth of organisms at lowest temperature
 (b) The lowest temperature at which the microorganisms grow
 (c) The maximum temperature at which the growth is stable
 (d) None of these
- (xiv) The utilization of light energy to drive the synthesis of ATP is called as..... (1M)
 (a) Photolysis (b) Photophosphorylation (c) Photosynthesis (d) Respiration
- (xv) Betalactam ring is present in..... (1M)
 (a) Erythromycin (b) Penicillin (c) Tetracyclins (d) Chromphenical

- (xvi) Ciprofloxacin acts by inhibiting (1M)
(a) Cellwall synthesis (b) RNA synthesis (c) Folate synthesis (d) DNA gyrase
- (xvii) Mantoux test detects (1M)
(a) M. tuberculosis (b) Cynaobacteria (c) Clostridia (d) Both a and b
- (xviii) Common cold is caused by..... (1M)
(a) Adeno virus (b) Rhinovirus (c) Hepatitis virus (d) Pox virus
- (xix) is used for testing Diphtheria virulence. (1M)
(a) Ascoli's thermoprecipitation test (b) Eleck's gel precipitation test
(c) C.R.P test (d) M.R.T. test
- (xx) Bacterial gastroenteritis is caused by (1M)
(a) Escherichia coli (b) Vibrio cholera
(c) Clostridium difficile (d) Allthe above

PART -II

2. a) Write a note on nitrogen sources used in microbial media. (5M)
b) Explain the methods used for preservation of microorganisms. (5M)
3. a) Write short notes on chemical methods of sterilization. (5M)
b) With a neat sketch explain the principle and working of an autoclave. (5M)
4. a) Write principle and procedure involved in antibacterial activity evaluation using broth dilution method. (5M)
b) Discuss the components and working of vertical laminar airflow unit. (5M)

PART -III

5. Discuss the factors affecting bacterial growth. (5M)
6. Write short notes on significance of microbiology in pharmaceutical sciences. (5M)
7. Write in brief on biochemical tests used for identification of bacteria. (5M)
8. Write short notes on sterilization by filtration. (5M)
9. Write methods used for cultivation of virus. (5M)
10. Explain the procedure involved in sterility testing of eye drops as per IP. (5M)
11. What is clean area? Write its significance. (5M)
12. Discuss the principle and procedure involved in microbiological assay of vitamin B12. (5M)
13. Write short notes on media used for cell culture. (5M)