

B. Pharm. CBCS Pattern Semester-III
BP303T - Pharmaceutical Microbiology

Time : Three Hours



GUG/W/23/10886

Max. Marks : 75

Notes :

1. Illustrate your answers wherever necessary with the help of neat sketches.
2. All questions are compulsory.

1. Multiple choice questions.

$$\begin{aligned} 1 \times 20 \\ = 20 \end{aligned}$$

- 1) Glycerol may be used as a preservative upto a percentage of -----.
a) 15
b) 50
c) 10
d) 1
- 2) Chloroplasts are mainly present in -----.
a) Animal cell
b) Plant cell
c) Bacterial cell
d) Cell fungal
- 3) Most important surface active disinfectants are -----.
a) Anionic
b) Cationic
c) Non-ionic
d) Amphoteric
- 4) TMV means
a) Tomato Mosaic Virus
b) Tomato Mottle Virus
c) Tobacco Mosaic Virus
d) Tobacco Mottle Virus
- 5) A three dimensional picture is commonly observed by
a) TEM
b) SEM
c) CM
d) All of the above
- 6) This technique is only used for isolation or purification of cultures.
a) Pour plate
b) Spread plate
c) Streak plate
d) None
- 7) The locomotion in bacteria are
a) Flagella
b) Pilli
c) Pseudopods
d) Both a & b
- 8) Who has proposed the tetrahedral geometry of the alkanes
a) Van't Hoff
b) Baeyer
c) Both a & b
d) None
- 9) LAL test is done for -----
a) Oral formulation
b) Parenteral formulation
c) Liposomes
d) Solid formulation
- 10) Which of the following are chemical indicators of sterilization?
a) Browne's tube
b) Witness tube
c) Royce sachet
d) All of the above
- 11) Fritz Zernike discovered the microscope
a) Fluorescence
b) Electron
c) Phase contrast
d) Compound
- 12) Mycobacterium tuberculosis was discovered by -----
a) Robert Koch
b) Paul Ehrlich
c) Richard Petri
d) Alexander Fleming

- 13) Select the yeast from the following
 - a) Aspergillus
 - b) Saccharomyces
 - c) Streptomyces
 - d) Penicillium
- 14) Viruses are best grown in -----
 - a) Blood agar
 - b) Enriched media
 - c) Liquid media with serum
 - d) Media with living cells
- 15) Most effective method for determination of viable count is -----
 - a) Counter count
 - b) Colony count
 - c) Spectrophotometry
 - d) Chemostat
- 16) Efficiency of HEPA filter is -----%
 - a) 99.97
 - b) 88.87
 - c) 90.97
 - d) 97.97
- 17) Staphylococcus aureus is used for IP assay of -----
 - a) Bleomycin
 - b) Carbenicillin
 - c) Doxycycline
 - d) Kanamycin
- 18) Microbial limit of aluminum hydroxide gel for total viable count is less than -----
 - a) 10/ml
 - b) 100/ml
 - c) 500/ml
 - d) 1000/ml
- 19) Bacteria are more sensitive to antibiotics at which phase of growth curve?
 - a) Lag phase
 - b) Log phase
 - c) Stationary phase
 - d) Decline phase
- 20) Peptone water and nutrient broth are -----
 - a) Enriched media
 - b) Enrichment media
 - c) Basal media
 - d) Differential media

2. Solve any two.

**10x2
=20**

- 1) Define microbiology, give its history, scope and importance.
- 2) Write in detail about the construction and design of aseptic area.
- 3) Explain in short different techniques used for cultivation of viruses.

3. Solve any seven.

**5x7=
35**

- 1) Explain in detail principle and application of IMViC test.
- 2) Explain the different airflow patterns used in the manufacturing area of parenteral.
- 3) Explain different types of media.
- 4) Write a short note on sterility testing.
- 5) Write a short note on SEM (Scanning Electron Microscopy).
- 6) Give the contribution of Louis Pasteur in microbiology.
- 7) Explain in short factors affecting microbial spoilage.
- 8) Explain bacterial growth curve in detail.
- 9) Explain classification of fungi.
