



- 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.

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