

Seat Number

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Sept-19

**BP 303-T**  
**Pharmaceutical Microbiology**  
**(723303)**

P. Pages : 3

**Time : Three Hours**

Max. Marks : 75

**Instructions to Candidates :**

1. Do not write anything on question paper except Seat No.
2. Graph or diagram should be drawn with the black ink pen being used for writing paper or black HB pencil.
3. Students should note, no supplement will be provided.
4. Diagram should be drawn whenever necessary.
5. All questions are compulsory.
6. Figure to the right indicate full marks.

1. Choose the proper alternative of the following

20

- Bacterial flagella is made up from -----  
a) Pilin  
b) Flagellin  
c) Lichenin  
d) Lipids
- Sterility testing media is  
a) MacConkey's media  
b) Blood - Agar  
c) Fluid - Thioglycolate media  
d) Nutrient Agar
- Laminar - Air flow supply sterile air with the help of  
a) HEPA filter  
b) Membrane - filter  
c) Seitz filter  
d) Asbestos filter
- Acid - fast bacteria is -----  
a) Staphylococcus aureus  
b) Salmonella typhi  
c) E. Coli  
d) Mycobacterium tuberculosis.
- In Gram's staining ----- is used as decolorizer.  
a) Crystal violet  
b) Methylene blue  
c) Safranin  
d) Alcohol
- Which process remove all forms of life?  
a) Sterilization  
b) Disinfection  
c) Filtration  
d) Radiation
- The best bacterial - culture preservation method which preserve culture upto twenty years.  
a) Soil - method  
b) Lyophilization  
c) Oil-overlay method  
d) Periodic – transfer method

- 8) The best Isotonic agent which are used for preparation of bacterial suspension.
  - a) Normal saline (NaCl)
  - b) Distilled-water
  - c) Tap-water
  - d) Alcohol
- 9) The resolving power of light microscope is
  - a)  $0.2\mu\text{m}$
  - b)  $0.2\text{\AA}$
  - c)  $0.2\text{nm}$
  - d)  $0.2\text{mm}$
- 10) Magnesium ribonucleate is present in -----
  - a) Gram positive bacteria
  - b) Gram negative bacteria
  - c) Acid-fast bacteria
  - d) Non-acid fast bacteria
- 11) Rod shape bacteria is called -----
  - a) Cocci
  - b) Bacilli
  - c) Spirillum
  - d) Positive bacteria
- 12) Which organism strictly required host?
  - a) Bacteria
  - b) Virus
  - c) Fungi
  - d) Algae
- 13) ----- is differential staining.
  - a) Simple staining
  - b) Negative staining
  - c) Gram's staining
  - d) Spore staining
- 14) Which part of bacterial cell protect the cell from desiccation condition?
  - a) Cell-wall
  - b) Cell-membrane
  - c) Flagella
  - d) Capsule
- 15) Which organism lock metabolic machinery?
  - a) Bacteria
  - b) Virus
  - c) Fungi
  - d) Algae
- 16) ----- is act as good decolourizer in Gram's staining.
  - a) Crystal violet
  - b) Saffranine
  - c) Alcohol
  - d) Dettol
- 17) Which concentration of Ethanol is effective on object?
  - a) 100%
  - b) 70%
  - c) 50%
  - d) 30%
- 18) Find the correct solidifying agent required for bacterial culture media.
  - a) Saffron
  - b) Agar-Agar
  - c) Peptone
  - d) Beef-extract
- 19) Death phase of bacteria represent ----- phase.
  - a) Lag phase
  - b) Log phase
  - c) Decline phase
  - d) Stationary phase
- 20) Fluid-mosaic model represents the structure of bacterial -----
  - a) Cell-wall
  - b) Capsule
  - c) Flagella
  - d) Cell-membrane.

2. Attempt **any two** from the following. 20

- 1) Explain requirements of & designing of Aseptic area.
- 2) Describe Reproduction of viruses by diagrammatic representation.
- 3) Explain various methods of measurement of bacterial growth.

3. Attempt **any seven** of the following. 35

- 1) Explain cultivation of viruses by chick-Embryo technique.
- 2) Describe sterility testing with suitable method.
- 3) Explain bacterial growth curve with applications.
- 4) Explain various steps involved in animal-cell culture.
- 5) Write down the mode of action of Ethyl Alcohol & Halogen & explain it.
- 6) Write a short note on Radiation Sterilization.
- 7) Describe the ultrastructure of flagella with suitable diagram.
- 8) Explain working & construction of Electron microscope with suitable ray diagram.
- 9) Describe principle & method of Gram's staining.

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