

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY  
LONERE - RAIGAD - 402 103

Winter Semester Examination - December - 2018

Course: B. Pharm.

Semester: III

Subject with Subject Code: Pharmaceutical Microbiology (BP303T)

Date: 22/12/2018

Marks: 75

Duration: 3hrs

- Instructions: i) All questions are compulsory  
ii) Figures to the right indicate full marks  
iii) Draw the diagrams or flow charts wherever necessary.

Q. 1 Choose the correct alternatives.

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1. In the Riedel walker test strain used is:

- A. *E. coli*
- B. *Salmonella typhi*
- C. *Clostridium tetani*
- D. *Streptococcus pyrogenous*

2. The value that shows time to kill 90% of microorganisms present in sample is called

- A. F-value
- B. T-value
- C. Z-value
- D. D-value

3. Biological indicator for radiation sterilisation is

- A. *B. subtilis*
- B. *B. pumilis*
- C. *S. marcescens*
- D. *B. stearothermophilus*

4. Lysol is a...

- A. Disinfectant
- B. Sterilent
- C. Antiseptic
- D. Antifungal

5. Which of the following method is best to sterilize heat labile solutions?

- A. Hot Air Oven
- B. Autoclave
- C. Pasteurization
- D. Membrane filtration

6. Temperature range for 'pasteurization' is

- A. 60°-70°C
- B. 62°-72°C
- C. 65°-75°C
- D. 121°-130°C

7. Flagella are made up of which protein:

- A. Flagettetein
- B. Flagellin
- C. Flagellicine
- D. Flagellinocine

8. Viruses are best grown in

- A. Blood agar
- B. Enriched media
- C. Liquid media with serum
- D. Media with living things

9. Efficiency of HEPA filter is \_\_\_\_\_ %
- A. 90.97
  - B. 88.87
  - C. 98.79
  - D. 99.97
10. Test micro organism used for microbiological assay for vitamin B12
- A. *L. viridescens*
  - B. *L. casei*
  - C. *L. leichmanii*
  - D. None of the above
11. The order of reagents used in the Gram stain are:
- A. Alcohol, crystal violet, iodine, saffranin
  - B. Crystal violet, iodine, saffranin, alcohol
  - C. Crystal violet, iodine, alcohol, saffranin
  - D. Iodine, crystal violet, saffranin, alcohol
12. Production of acetoin can be detected by which of the following tests?
- A. Citrate test
  - B. Voges-Proskauer test
  - C. Methyl red test
  - D. Indole test
13. What type of microscopy is usually necessary to observe viruses?
- A. Dark field
  - B. Compound
  - C. Phase contrast
  - D. Electron
14. Nearly all plant virus are:
- A. DNA virus
  - B. RNA virus
  - C. Viroids
  - D. Satellite virus
15. When rod shaped bacteria appears to be in pair arrangement it is termed as:
- A. Staphylococci
  - B. Bacillus
  - C. Diplobacilli
  - D. Streptobacilli
16. Bacteria are sensitive to antibiotics at which phase of growth curve?
- A. Lag phase
  - B. Log phase
  - C. Stationary phase
  - D. Declined phase
17. Most important surface active disinfectant are
- A. Anionic
  - B. Cationic
  - C. Non-ionic
  - D. Amphoteric
18. A pH below \_\_\_\_\_ inhibits animal cell growth
- A. 7.2
  - B. 7.0
  - C. 6.8
  - D. 7.4

19. Prions are  
A. Bacteria  
B. Rickettsia  
C. Viruses  
D. Infectious protein
20. Lipopolysaccharides form a part of cell wall of  
A. gram positive bacteria  
B. gram negative bacteria  
C. coccus bacteria  
D. all of the above

Q. 2 Answer any two of the following questions.

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- a) What are main sources of contamination of an aseptic area? How will you prevent it?  
b) How will you assess microbial spoilage contamination in pharmaceuticals?  
c) How will you calculate time require for generation of Bacteria? Explain growth curve of bacteria.

Q. 3 Answer any seven of the following questions.

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- a) Write a note on cultivation of viruses.  
b) Write about Bacterial cell.  
c) Give classification of disinfectants.  
d) What is Microbiology? Write about different applied branches of Microbiology.  
e) Write a note on IMViC.  
f) Write note on chemical indicators.  
g) Write in detail about the applications of animal cell culture in pharmaceutical industry & research  
h) Explain filtration sterilisation.  
i) Explain any two methods for evaluation of disinfectants.

\*\*\*End\*\*\*