

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY

LONERE - RAIGAD - 402 103

Winter Semester Examination - December - 2018

Course: B. Pharm.

Subject with Subject Code: Pharmaceutical Microbiology (BP303T)

Semester: III

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 pyrogenus*

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