

PARUL UNIVERSITY
FACULTY OF PHARMACY
B. Pharm. Summer 2018 - 19 Examination

Semester: 03**Subject Code: BP303T****Subject Name: Pharmaceutical Microbiology-Theory****Date: 24/04/2019****Time: 10:00am To 01:00pm****Total Marks: 75****Instructions:**

1. Figures to the right indicate maximum marks.
2. Make suitable assumptions wherever necessary.

Q.1 Multiple Choice Questions (MCQs) (1 Mark Each)**(20)**

1. Which method is used for sterilization of fixed oil?
 - a) Filtration
 - b) Moist Heat Sterilization
 - c) Dry Heat Sterilization
 - d) Chemical Sterilization
2. _____ is biological indicator for Moist Heat Sterilization.
 - a) Bacillus subtilis
 - b) Staphylococcus aureus
 - c) Bacillus stercorophilus
 - d) Candida albicans
3. What is organ of adhesion in bacteria?
 - a) pili
 - b) flagella
 - c) spore
 - d) ribosome
4. _____ have properties of both virus and bacteria.
 - a) Actinomycetes
 - b) Rickettsiae
 - c) Spirochetes
 - d) All of them
5. _____ gives three dimensional view of an object.
 - a) Scanning Electron Microscope
 - b) Transmission Electron Microscope
 - c) Phase Contrast Microscope
 - d) Dark Field Microscope
6. Which of the following is not used for preservation of biomolecules?
 - a) Lyophilization
 - b) Cryopreservation
 - c) Vacuum foam drying
 - d) Autoclaving
7. _____ is known as Cold Sterilization.
 - a) filtration
 - b) Moist Heat Sterilization
 - c) Dry Heat Sterilization
 - d) Gamma Radiation
8. Time in minutes at any defined temperature to destroy 90% viable microorganism is called _____.
 - a) D value
 - b) F value
 - c) Z value
 - d) Q₁₀ value

9. Mycology is study of _____.
- a) Virus
b) Fungi
c) Bacteria
d) Microorganisms.
10. In Riedel Walker test _____ is used.
- a) Escherichia coli
b) Salmonella typhi
c) Clostridium tetani
d) Streptococcus pyrogens
11. Out of following which is not the constituent of Nutrient Agar media:
- a) Thioglycolic acid
b) agar
c) Peptone
d) Sodium Chloride
12. DOP Test is carried out for _____.
- a) Disinfectant Activity Test
b) Microbiological Assay
c) Particle count test
d) LAF Efficiency Test
13. Cresol with Soap solution B.P. is also known as:
- a) Lysol
b) Dettol
c) Phenyl
d) None of above
14. Which of the following is antimicrobial preservative?
- a) Methyl Paraben
b) Microcrystalline Cellulose
c) Magnesium Carbonate
d) BHT
15. Which of the following is used as culture media to carry out sterility testing?
- a) Nutient agar media
b) Nutient broth
c) both of them
d) None of them
16. Which of the following is used for locomotion in bacteria?
- a) fimbrie
b) flagella
c) cell wall
d) nucleus
17. Gram negative bacteria are commonly classified by _____.
- a) Urease test
b) Catalase test
c) Oxidase test
d) IMViC test
18. Test organism for Streptomycin is _____.
- a) Bacillus subtilis
b) Bacillus pumilus
c) Staphylococcus epidermis
d) None of above
19. Viable count means _____.
- a) Number of dead cells present in the sample.
b) Number of live cells present in the sample.
c) Number of dead and live cells present in the sample.
d) All of above.

20. Class 100 clean room means _____.

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|--|---|
| a) less than 100 particles larger than 0.5 microns per cubic foot of air space | b) less than 100 particles larger than 1 micron per cubic foot of air space |
| c) more than 100 particles larger than 0.5 microns per cubic foot of air space | d) more than 100 particles larger than 1 micron microns per cubic foot of air space |

Q.2 Long Answers (any 2 out of 3) (10 Marks Each) (20)

1. Discuss normal growth curve of bacteria and describe types of bacteria based on their oxygen, temperature and nutritional requirements.
2. Define sterilization and write a detailed note on Autoclave.
3. Discuss factors affecting action of disinfectant in detail.

Q.3 Short Answers (any 7 out of 9) (5 Marks Each) (35)

1. Write a note on reproduction of bacteriophage.
2. What is microbial assay? Describe its advantages over chemical assay.
3. Discuss designing of aseptic area and describe equipments for laminar air flow.
4. Explain applications of cell culture in pharmaceutical industry and research.
5. Discuss factors affecting microbial spoilage of pharmaceuticals.
6. Mention scope and importance of Microbiology.
7. Explain principle of gram staining and negative staining in detail.
8. Discuss tests for media used for sterility testing.
9. Write a note on cultivation of anaerobes.