

341353(41)

B Pharmacy (Third Semester) Examination

Nov.-Dec. 2019

(PCI)

(Pharmacy Branch)

PHARMACEUTICAL MICROBIOLOGY - THEORY

(BP303T)

Time Allowed : Three hours

Maximum Marks : 75

Note : All sections are necessary. Internal options are given in Section B and Section C. Make a diagram wherever necessary.

Section - A

(Multiple Choice Questions)

Note : Attempt all questions from MCQs. All question carry 01 mark each.

1. Choose the correct answer : 1×20=20

(i) Diplococci is a classification of :

(a) Bacteria

(b) Virus

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PTO

(c) Fungi

(d) Protozoa

(ii) Bacteria remain constant in which of the following phase of their growth cycle :

(a) Lag Phase

(b) Log Phase

(c) Stationary phase

(d) Declining phase

(iii) Which of the following is a type of electron microscope :

(a) Phase contrast

(b) TEM

(c) SEM

(d) (b) and (c) are correct

(iv) Which of the following method is suitable for sterilization of rubber materials :

(a) Hot air oven

(b) Autoclave

(c) Filtration

(d) All of the above

(v) Staining is used for the purpose of :

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- (a) Identification of microorganism
 - (b) Sterilization of microorganism
 - (c) To cultivate the colony of any microorganism
 - (d) To make the bacteria immobile
- (vi) Find the mechanism of action of alcohol as a disinfectant :
- (a) Precipitation of cell of bacteria
 - (b) Increasing the permeability of water in cell
 - (c) Coagulation of bacterial cell
 - (d) None of the above
- (vii) Which of the following condition may affect the efficacy of disinfectant?
- (a) Organic matter
 - (b) Temperature
 - (c) Concentration of disinfectant
 - (d) All can affect the efficacy of disinfectant
- (viii) The agent which kills the microorganism (bacteria) is called :
- (a) Bactericidal
 - (b) Bacteriostatic
 - (c) Vermicide

- (d) Fungicidal
- (ix) Which of the following is a assay method of antibiotic :
- (a) Cup-plate method
 - (b) Serial dilution method
 - (c) Disc-plate methods
 - (d) All of the above
- (x) Assay of vitamin is done for which of the following purpose :
- (a) To study the growth of bacteria in presence of vitamin
 - (b) To study the death of bacteria in presence of vitamin
 - (c) To count the number of death of bacteria
 - (d) None of the above
- (xi) What is the full form of BOD :
- (a) Biological oxygen demand
 - (b) Biological organic demand
 - (c) Biomedical oxygen declaration
 - (d) Biological organic degradation

(xii) Which of the following substance is used in the food preservation technique :

- (a) Oil
- (b) Salt
- (c) Canning
- (d) All are correct

(xiii) Transferring the specific microorganism from culture to make a desired culture is called :

- (a) Pure culture technique
- (b) Transferring methodology
- (c) Colony development
- (d) Inoculation process

(xiv) Penicillin was discovered by :

- (a) Alexander Fleming
- (b) Louis Pasteur
- (c) Albert Stiffen
- (d) Mariana DaCosta

(xv) Which of the following drug is made y using recombinant DNA technology :

- (a) Penicillin
- (b) Ampicillin

(c) Insulin

(d) Paracetamol

(xvi) Fermentation technique was given by :

- (a) Alexander Fleming
- (b) Louis Pasteur
- (c) Edward Jenner
- (d) Stiffen Johnson

(xvii) Study of virus is called :

- (a) Bacteriology
- (b) Zoology
- (c) Virology
- (d) Anthropology

(xviii) Which of the following is not a type of staining technique :

- (a) Negative staining
- (b) Acid fast staining
- (c) Gram staining
- (d) Bipolar staining

(xix) Who is the father of microbiology :

- (a) Robert Coach

- (b) Antonie Van Leeuwenhoek
- (c) Mouldy Marry
- (d) Michael Faraday

(xx) Which of the following is not related with cell culture :

- (a) Inoculation
- (b) Culture media
- (c) Pure culture
- (d) Staining

Section - B

(Long Answer Type Question) 2×10=20

Note : Attempt any two questions. Each question carry 10 marks.

2. Define sterilization. Classify and explain various methods of sterilization with their advantage and limitations.
3. What do you understand by the microbial assay? Explain cup-plate and serial dilution methods in detail.
4. What is staining? Give a detail note on various types of staining and explain gram staining.

Section - C

(Short Answer Type Question) 7×5=35

Note : Attempt any Seven questions. Each question carry 5 marks.

5. Give contribution of Louis Pasteur in the field of microbiology with examples.
6. Classify the bacteria on basis of various criteria.
7. Write various factors affecting disinfection.
8. Write short notes application of cell culture in pharmaceutical industry and research.
9. Write preservation technique for pharmaceutical products.
10. Explain various phases of bacterial growth cycle.
11. Elaborate the parts and function of electron microscope.
12. Write different possible sources of contamination in aseptic area.
13. Explain BOD and COD under environmental cleanliness.