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# II/VI PHARM-D DEGREE EXAMINATIONS, AUGUST - 2022

## Second Year

## PHARMACEUTICAL MICROBIOLOGY

Time : **Three Hours** Maximum : **70** Marks

**Answer any FIVE Questions.** **5x14 = 70 M**

**All Questions carry equal marks**

1. What is Sterility testing and add a detailed note on sterility testing of pharmaceutical products ?
2. Discuss the characteristics of the following diseases.
   a) Meningitis.
   b) Gonorrhea.
3. Describe Moist heat sterilisation & Dry heat sterilisation methods and give a note on advantages & disadvantages of both methods ?
4. a) Describe and classify Microbial World ?
   b) Write about Morphological classification of
      (i) Bacteria.
      (ii) Viruses.
5. a) How do you differentiate Gram +ve bacteria from Gram -ve bacteria, explain in detail?
   b) Discuss simple staining technique ?
6. Write a note on following biochemical tests for identification of bacteria.
   a) Indole production test.
   b) Methyl red test.
   c) Citrate utilisation test.
7. a) Discuss in detail about Antigen & Antibody reaction ?
   b) Give a brief account on bacterial Exotoxins & Endotoxins.

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**II/VI Pharma.D (Regular & Supply) DEGREE EXAMINATIONS, AUG/SEP-2019**

**(Examination at the end of Second year)**

**PHARMACEUTICAL MICROBIOLOGY**

**Time: Three Hours** **Maximum marks:70**

**Answer any FIVE Questions.** **5X14=70M**

**All questions carry equal marks.**

1. a) Describe the structure of fungus and write about its reproduction.
   b) Write notes on spirochetes.
2. a) Write about different types of media used in cultivation of bacteria.
   b) Write notes on preservation of microbial cultures & culture collection centers
3. a) Explain about various factors affecting in evaluation of a disinfectant.
   b) Explain the principles involved in the following biochemical reactions.
   i) Starch hydrolysis ii) Fermentation of carbohydrates
4. a) Explain the terms 'germicide' and 'disinfectant'. Write the working principle, conditions, applications and limitations of sterilization by filtration method.
   b) Write notes on evaluation of preservative?
5. a) Write the various types of antibodies based on their antigenic stimuli. Add note on phagocytosis.
   b) Write about the Shick's test.
6. a) Explain in detail about the microbiological assay of vitamin $B_2$.
   b) Write notes on significance of toxoids in active immunity.
7. Write the etiology, causative organism, mode of transmission, control and prevention of the following infectious diseases.
   i) Malaria ii) tuberculosis iii) Hepatits

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Total No. of Questions :07]

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# II/VI Pharma.D (Regular) DEGREE EXAMINATIONS, April/May-2018

## (Examination at the end of Second year)

## Pharma-D

## Paper II- PHARMACEUTICAL MICROBIOLOGY

**Time: Three Hours** **Maximum marks:70**

**Answer any FIVE questions.**

**All questions carry equal marks.** **5X14=70M**

1. a) Describe the major divisions of microbial world. Write the classification of bacteria based on their optimal growth temperature.

   b) Write notes on rickettsiae and spirochetes.

2. a) Explain the following media with examples

   i) Selective ii) Differential iii) Enriched

   b) Write notes on structure of virus.

3. a) Describe in detail about the various methods used for isolation pure culture.

   b) Explain the principles of any two differential staining methods with example.

4. a) Explain the terms 'sterilization' and 'aseptic'. Write the working principle, conditions, applications and limitations of dry heat sterilization.

   b) Mention the merits and demerits of radiation sterilization by gamma rays.

5. a) Explain the structure of the antibody. Add note on antigen-antibody reactions.

   b) Describe in detail about the PCR.

6. a) Explain in detail about the microbiological assay of streptomycin.

   b) Write notes on bacterial endotoxins.

7. Write the etiology, causative organism, mode of transmission, control and prevention of the following infectious diseases.

   i) Typhoid ii) Syphilis iii) HIV

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# II/VI PHARMA.D (Regular) DEGREE EXAMINATIONS, JULY- 2017

## Second Year

## Paper II- PHARMACEUTICAL MICROBIOLOGY

**Time: Three Hours** **Maximum marks:70**

**Answer any FIVE questions.**

**All questions carry equal marks.** **5X14=70M**

1. Write the structure, physical conditions and nutritional requirements for the growth of the following microorganisms.
   a) Bacteria b) Virus
2. Write about the following
   a) Different methods used for isolation pure culture
   b) Principle and procedure of acid fast staining.
3. Write notes on the following
   a) Radiation sterilization-merits & demerits
   b) Preservative efficacy testing in pharmaceutical preparations.
4. Explain in detail about antibody structure. Add note on significance of toxoids.
5. Write the principle and applications of the following diagnostic tests.
   a) Mantaux b) PCR c) Western Blotting
6. a) Write in detail about the microbiological assay of vitamin $B_2$.
   b) Write about the standardization of vaccines and sera.
7. a) Write a note on the following diseases.
      i) Tuberculosis ii) Meningitis
   b) Write about the phagocytosis and importance of booster dose.

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**II/VI Pharm.D DEGREE EXAMINATIONS, AUGUST/SEPTEMBER-2016**

**PAPER-II**

Y14PHD0323

**PHARMACEUTICAL MICROBIOLOGY**

**Time: Three Hours** **Maximum marks:70**

**Answer any FIVE questions.**

**All questions carry equal marks.** **5X14=70M**

1. a) Write in detail about Whittaker's five kingdom classification.

   b) Mention the major fields of microbiology and write the importance of pharmaceutical microbiology.

2. a) Write about the general features of spirochetes and filamentous Gram positive bacteria

   b) Write notes on various types of media.

3. a) Write the principle involved in Gram's and acid fast staining.

   b) How do you quantify the bacteria by viable count method and add note on total count.

4. Write the coditions, mechanism of action, applications and limitations of the following sterilization agents.

   a) Ethylene oxide b) Moist heat under pressure c) Gamma rays

5. a) Explain the following terms

      i) disinfection ii) bactericide iii) antiseptic

   b) How do you evaluate the efficacy of a preservative in a pharmaceutical preparation.

6. Write note on the following:

   a) Phagocytosis b) Structure of an antibody c) Active immunity

7. a) Write the principle and procedure of microbiological assay of vitamin $B_{12}$.

   b) Write about the following

      i) QBC test ii) Syphilis disease