

(LO 2035)

MARCH 2019

Sub. Code: 2035

B.PHARM. DEGREE EXAMINATION
PCI Regulation – SEMESTER III
PAPER III – PHARMACEUTICAL MICROBIOLOGY

Q.P. Code: 562035

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions. (2 x 10 = 20)

1. Discuss various preservation methods of Pure culture.
2. Give a detailed note on cultivation of Viruses in laboratory.
3. Explain the types of Laminar air flow equipment and its operating principles with suitable diagram.

II. Write notes on: Answer any SEVEN questions. (7 x 5 = 35)

1. Explain briefly about the structures internal to bacterial cell wall with diagram.
2. Write the principle and procedure of Gram staining method.
3. Indole production test.
4. Write a note on Radiation sterilization.
5. Classification of Fungi.
6. Explain briefly about the various factors influencing disinfectant action.
7. What is Minimum Inhibitory Concentration? Explain the assay of Antibiotics by Turbidimetric method.
8. Write a note on various sources and types of Microbial contaminants.
9. Application of Primary cell culture.

III. Short answers on: Answer ALL questions. (10 x 2 = 20)

1. Tyndallization.
2. Classification of bacteria based on temperature.
3. Use of culture media.
4. Principle of Acid fast staining method.
5. Dry heat sterilization.
6. What is Chick-Martin test?
7. Distinguish Antiseptics and Disinfectants.
8. Give the principle of Microbial assay.
9. Any two factors affecting Microbial spoilage.
10. Transformed cell culture.

(LP 2035)

SEPTEMBER 2019

Sub. Code: 2035

B.PHARM. DEGREE EXAMINATION
PCI Regulation – SEMESTER III
SECOND YEAR
PAPER III – PHARMACEUTICAL MICROBIOLOGY

Q.P. Code: 562035

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions. (2 x 10 = 20)

1. Explain how microscopic methods (staining techniques) help in the identification of micro-organism.
2. Explain the different factors affecting the microbial spoilage of pharmaceutical products.
3. Explain the importance of sterilization indicators used for the evaluation of the efficiency of sterilization methods.

II. Write notes on: Answer any SEVEN questions. (7 x 5 = 35)

1. Explain the classification of disinfectant.
2. Scope and application of Microbiology.
3. State the methods of preservation of microbial cultures.
4. Microbial assay of Antibiotics.
5. Explain about moist heat sterilization.
6. Write on sterility test of pharmaceutical products.
7. Define Phenol coefficient test. Explain Chick Martin's test.
8. Classify micro-organisms depending on temperature with examples.
9. Explain the principle, procedure and interpretation of Voge-Proskauer test.

III. Short answers on: Answer ALL questions. (10 x 2 = 20)

1. List the functions of bacterial capsule.
2. Mycolic acid.
3. Unique property of agar as a solidifying agent.
4. Sex pili.
5. Growth curve.
6. Add a note on distribution pattern of flagella.
7. Define sanitizers and Antiseptic.
8. Membrane filter.
9. Give two examples each of fungicidal and virucidal agents.
10. Primary cell culture.

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[LR 0121]

JANUARY 2021

Sub. Code: 2035

(MARCH 2020 EXAM SESSION)

B. PHARMACY DEGREE EXAMINATION

PCI REGULATION – SEMESTER III

PAPER III – PHARMACEUTICAL MICROBIOLOGY

Q.P. Code: 562035

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions.

(2 x 10 = 20)

1. Define Sterilization and explain in detail about Sterilization by Radiation and Chemical agents.
2. Discuss Microbiological assay of Antibiotics.
3. Explain the evaluation of Disinfectants.

II. Write notes on: Answer any SEVEN questions.

(7 x 5 = 35)

1. Describe the nutritional requirements and physical conditions required for Bacterial growth.
2. Explain viable count of Bacteria.
3. Explain about the Lytic cycle.
4. Explain in detail about the factors influencing disinfection action.
5. Discuss the different sources of contamination in an Aseptic area.
6. Explain in detail about media used for Animal cell culture.
7. Explain the types of Microbial spoilage.
8. Describe the Gram staining technique with examples.
9. Explain about Sterility indicators.

III. Short answers on: Answer ALL questions.

(10 x 2 = 20)

1. Define Generation time with examples.
2. What is Fumigation?
3. Define Bacteriophage.
4. Give examples for Acid-fast bacteria.
5. Laminar Air Flow.
6. What are the media used for Sterility test?
7. Classify Bacteria based on flagella arrangements.
8. Define Cell line with examples.
9. Give examples of preservatives used for the preparation of pharmaceutical products.
10. What is moist heat sterilization?

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[BPHARM 0921]

**SEPTEMBER 2021
(SEPTEMBER 2020 EXAM SESSION)**

Sub. Code: 2035

**B.PHARM. DEGREE EXAMINATION
PCI Regulation 2017 – SEMESTER III
PAPER III - PHARMACEUTICAL MICROBIOLOGY**

Q.P. Code: 562035

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions. (2 x 10 = 20)

1. What is Differential staining? Explain in detail about the Acid fast staining method.
2. Define Disinfectants. Classify them and give a descriptive note on mode of action of disinfectants.
3. What is Spoilage? Write down the various factors affecting the spoilage of Pharmaceutical products.

II. Write notes on: Answer any SEVEN questions. (7 x 5 = 35)

1. Explain the morphological classification of Bacteria with suitable diagram.
2. Explain briefly about the nutritional requirements of Bacteria.
3. Cultivation method of Anaerobes.
4. Methyl Red test.
5. Write a note on Moist heat sterilization method.
6. Explain Phenol coefficient test?
7. Explain briefly about the different sources of contamination in an Aseptic area.
8. Assay of Antibiotics by cup plate or cylinder plate method.
9. Give the applications of cell cultures in Pharmaceutical industry and Research.

III. Short answers on: Answer ALL questions. (10 x 2 = 20)

1. Prokaryotes.
2. Functions of Pili.
3. Endospores.
4. Generation time.
5. Physical Indicators.
6. Disinfectant.
7. List some sterile Pharmaceutical products.
8. What is Sterility test?
9. Give any two importance of Aseptic technique.
10. Classification of Clean area.
