

September 2010

[KX 808]

Sub. Code: 3808

DOCTOR OF PHARMACY (PHARM. D) DEGREE EXAMINATION

(Regulations 2008 - 2009)

(Candidates admitted from 2008-2009 onwards)

SECOND YEAR

Paper II - PHARMACEUTICAL MICROBIOLOGY

Q.P. Code : 383808

Time : Three hours

Maximum : 70 marks

Answer All questions

I. Essay Questions :

(2 x 20 = 40)

1. Define Disinfection. Classify Disinfectants. Write in detail about evaluation of disinfectants.
2. Write the different types of Media. Differentiate bacteria and fungi. Write the different methods of identification of bacteria.

II. Write Short Notes :

(6 x 5 = 30)

1. Sterility Testing.
2. Types of Immunity.
3. Dry Heat Sterilization.
4. Antigen – Antibody Reaction.
5. Nutritional Requirement of Bacteria.
6. Name different Blot techniques and explain Western Blot.

May 2011

[KY 808]

Sub. Code: 3808

DOCTOR OF PHARMACY (PHARM. D) DEGREE EXAMINATION

(Regulations 2008 - 2009)

(Candidates admitted from 2008-2009 onwards)

SECOND YEAR

PAPER II - PHARMACEUTICAL MICROBIOLOGY

Q.P. Code : 383808

Time : Three hours

Maximum : 70 marks

Answer All questions

I. Essay Questions :

(2 x 20 = 40)

1. Discuss the factors affecting bacterial growth. What are the various types of nutrient media?
2. Define immunity and elaborate on different types of immunity. What are antigen antibody interactions and its importance?

II. Write Short Notes :

(6 x 5 = 30)

1. Modes of transmission, diagnosis and treatment of **any two** viral diseases.
2. Classify different categories of disinfectants with examples and their uses.
3. Microbiological assays.
4. Principle involved in sterility testing.
5. Morphology and identification of fungi.
6. Differential staining.

October 2011

[KZ 808]

Sub. Code: 3808

DOCTOR OF PHARMACY (PHARM. D) DEGREE EXAMINATION

SECOND YEAR

PAPER II - PHARMACEUTICAL MICROBIOLOGY

Q.P. Code : 383808

**Time : 3 hours
(180 Min)**

Maximum : 100 marks

Answer ALL questions in the same order.

I. Elaborate on :

| | Pages (Max.) | Time (Max.) | Marks (Max.) |
|--|-------------------------|------------------------|-------------------------|
| 1. Explain the structure, nutritional requirements and reproduction of Bacteria. | 17 | 40 min. | 20 |
| 2. Define Sterilization. Discuss the different methods of sterilization with examples. Add a note on validation. | 17 | 40 min. | 20 |

II. Write notes on :

| | | | |
|---------------------------------------|---|---------|---|
| 1. Acquired Immunity. | 4 | 10 min. | 6 |
| 2. Cultivation of virus. | 4 | 10 min. | 6 |
| 3. Evaluation of Disinfectants. | 4 | 10 min. | 6 |
| 4. Antigen-Antibody reactions. | 4 | 10 min. | 6 |
| 5. ELISA test. | 4 | 10 min. | 6 |
| 6. Microbiological assay of Vitamins. | 4 | 10 min. | 6 |
| 7. Tuberculosis. | 4 | 10 min. | 6 |
| 8. Hepatitis. | 4 | 10 min. | 6 |
| 9. Standardization of vaccines. | 4 | 10 min. | 6 |
| 10. Immunization programme. | 4 | 10 min. | 6 |

[LA 808]

APRIL 2012

Sub. Code: 3808

DOCTOR OF PHARMACY (PHARM. D) DEGREE EXAMINATION

SECOND YEAR

PAPER II - PHARMACEUTICAL MICROBIOLOGY

Q.P. Code : 383808

**Time : 3 hours
(180 Min)**

Maximum : 100 marks

Answer ALL questions in the same order.

I. Elaborate on :

**Pages Time Marks
(Max.) (Max.) (Max.)**

- | | | | |
|---|----|----|----|
| 1. (a) Outline the factors affecting the disinfectant action. (b) Write in detail about Western blot techniques? | 17 | 40 | 20 |
| 2.(a) Elaborate on the microbial assay of riboflavin and cyanocobalamine. (b) Write in brief about type of culture media | 17 | 40 | 20 |

II. Write notes on :

- | | | | |
|---|---|----|---|
| 1. Discuss the technique involved in Isolation of pure culture | 4 | 10 | 6 |
| 2. Write on widal test and Mantaux test | 4 | 10 | 6 |
| 3. Classify the various process under moist heat sterilization | 4 | 10 | 6 |
| 4. Reproduction of bacteria | 4 | 10 | 6 |
| 5. What you know about HEPA filter | 4 | 10 | 6 |
| 6. Write the principle and procedure of gram staining technique | 4 | 10 | 6 |
| 7. Differentiate between exotoxin and endotoxin | 4 | 10 | 6 |
| 8. Outline the immunization chart | 4 | 10 | 6 |
| 9. Write on aerobic and anaerobic fungi | 4 | 10 | 6 |
| 10. Discuss about carbon source and energy source. | 4 | 10 | 6 |

[LB 808]

OCTOBER 2012
PHARM. D DEGREE EXAMS
SECOND YEAR
PAPER II - PHARMACEUTICAL MICROBIOLOGY
Q.P. Code : 383808

Sub. Code: 3808

Time : 3 hours
(180 Min)

Maximum : 100 marks

Answer ALL questions in the same order.

I. Elaborate on :

Pages Time Marks
(Max.)(Max.)(Max.)

- | | | | |
|---|----|----|----|
| 1. a). Define Immunity. Explain the classifications of immunity with examples. | 17 | 40 | 20 |
| b). Microbiological assay of antibiotics. | | | |
| 2. a) Describe the sterility testing for different Pharmaceutical preparations. | 17 | 40 | 20 |
| b). Counting of Bacteria. | | | |

II. Write notes on:

- | | | | |
|--|---|----|---|
| 1. Reproduction of Fungi. | 4 | 10 | 6 |
| 2. Isolation of Bacteria. | 4 | 10 | 6 |
| 3. Evaluation of preservatives in Pharmaceutical preparations. | 4 | 10 | 6 |
| 4. Structure and Types of Antigen. | 4 | 10 | 6 |
| 5. PCR. | 4 | 10 | 6 |
| 6. Mantoux Test. | 4 | 10 | 6 |
| 7. Microbiological assay of Vitamin B ₁₂ . | 4 | 10 | 6 |
| 8. Malaria. | 4 | 10 | 6 |
| 9. Hepatitis. | 4 | 10 | 6 |
| 10. Multiplication of Viruses. | 4 | 10 | 6 |

[LC 808]

APRIL 2013

Sub. Code: 3808

PHARM. D DEGREE EXAMS

SECOND YEAR

PAPER II - PHARMACEUTICAL MICROBIOLOGY

Q.P. Code : 383808

Time : 3 hours

Maximum : 100 marks

I. Elaborate on :

(2x20=40)

1. (a) Explain different type of ELISA and its importance.
(b) How will you separate macromolecules (DNA, RNA) by Agarose gel electrophoresis method?
2. Write detail about symptom and treatment of following diseases. (i) Malaria (ii) Tuberculosis (iii) Cholera (iv) Hepatitis.

II. Write notes on :

(10x6=60)

1. Preparation of Alum precipitated toxoids.
2. Differentiate active and passive immunity.
3. Write on Viable counting methods.
4. Write differential media with examples.
5. Define validation and explain its importance.
6. Give brief account on Toxin neutralization test.
7. Specify the Function of T cells and B cells.
8. Write on gaseous sterilization method.
9. Antigen antibody interactions.
10. How will you carryout test for Sterility?

[LD 808]

OCTOBER 2013

Sub. Code: 3808

PHARM. D DEGREE EXAMINATIONS
SECOND YEAR
PAPER II - PHARMACEUTICAL MICROBIOLOGY

Q.P. Code : 383808

Time: Three Hours

Maximum: 70 marks

Answer ALL questions in the same order

I. Elaborate on:

(2 x 20 = 40)

1. Write on Bacteriostatic and bactericidal evaluation of disinfectant.
2. Elaborate study about growth and reproduction of bacteria.

II. Write notes on:

(10 x 3 = 30)

1. Brief notes on widal test
2. Define immunity and explain naturally acquired active and passive immunity with examples
3. Outline about gradient plate techniques
4. Brief notes on total counting method
5. Differentiate vaccine and sera
6. Give a brief account of Polymer chain reaction
7. How will you Preserve the culture by soil and nitrogen gas method
8. Explain Selective media with example
9. Expand HAT media and its function
10. Outline about phagocytosis

[LE 808]

APRIL 2014

Sub. Code: 3808

**PHARM. D DEGREE EXAMS
SECOND YEAR
PAPER II - PHARMACEUTICAL MICROBIOLOGY**

Q.P. Code : 383808

Time : 3 hours

Maximum : 70 marks

I. Elaborate on :

(2x20=40)

1. a) Classify Microbes with examples. Explain in detail about the morphology of Bacteria (10m).
b) Give the different methods of isolation and identification of bacteria with special emphasis to Gram's Staining technique (10m).
2. Study of infectious diseases
 - a) Meningitis
 - b) Syphilis
 - c) Gonorrhoea and HIV

II. Write notes on :

(10x3=30)

1. Procedure and report of Shick's Test
2. Define and differentiate Exotoxin and Endotoxin
3. Enriched media
4. Maintenance of cultures in laboratory
5. Rickettsiae with examples
6. Validation of Autoclave
7. Explain Pasteurization
8. Method of counting bacteria by membrane filtration technique
9. Redial Walker Coefficient Test
10. Importance of booster dose
