

MAY 2011

[KY 356]

Sub. Code: 2917

M.PHARM. DEGREE EXAMINATION.

(Regulations 2010)

(Candidates admitted from 2010-2011 onwards)

FIRST YEAR

BRANCH VI – PHARMACEUTICAL BIOTECHNOLOGY

**PAPER II – PHARMACEUTICAL ASPECTS OF MICROBIAL
AND CELLULAR BIOLOGY**

Q.P. Code : 262917

Time : Three hours

Maximum : 100 marks

Answer All questions

I. Essay Questions :

(6 x 10 = 60)

1. Detail about preparation and purification of DiphtheriaToxoid.
2. Classify immunity and explain.
3. Production of interferon's.
4. Outline about growth curve of bacteria.
5. Write detail about secondary metabolites and its application.
6. Give an account of Humoral and cellular immunity.

II. Write Short Notes :

(8 x 5 = 40)

1. Differentiate prokaryotic and eucaryotic microorganism.
2. Function of MHC.
3. Application of cell culture in pharmaceutical industry.
4. Mathematical explanation of bacterial growth.
5. Conjugation.
6. Structure of prokaryotic micro organism.
7. Synthesis of protein.
8. Classify bacteria depend on temperature.

October 2011

[KZ 356]

Sub. Code: 2917

M.PHARM. DEGREE EXAMINATION

FIRST YEAR

BRANCH VI – PHARMACEUTICAL BIOTECHNOLOGY

**PAPER II – PHARMACEUTICAL ASPECTS OF MICROBIAL
AND CELLULAR BIOLOGY**

Q.P. Code : 262917

**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, chemistry, nutritional requirements and reproduction of bacteria. Add a note on the industrial importance of bacteria.	17	40	20
2. Explain the Animal cell culture media and cultivation of primary culture.	17	40	20

II. Write notes on :

1. Actinomycetes.	4	10	6
2. Bio-energetics and Mechanism of ATP synthesis.	4	10	6
3. Synthesis of DNA.	4	10	6
4. Synthesis of proteins.	4	10	6
5. Hypersensitivity reactions.	4	10	6
6. Auto-immune diseases.	4	10	6
7. Mechanism of microbial pathogenicity.	4	10	6
8. Conjugation and Transduction.	4	10	6
9. Etiology, Pathology and control of any two bacterial diseases.	4	10	6
10. Mutagenesis and its applications in strain improvement.	4	10	6

[LA 356]

MAY 2012

Sub. Code: 2917

M.PHARM. DEGREE EXAMINATION

FIRST YEAR

BRANCH VI – PHARMACEUTICAL BIOTECHNOLOGY

PAPER II – PHARMACEUTICAL ASPECTS OF MICROBIAL AND
CELLULAR BIOLOGY

Q.P. Code : 262917

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. Elaborate study about microbial sensitive of <i>Klebsiella pneumonia</i> against streptomycin. | 17 | 40 | 20 |
| 2. a. Define immunity and Explain different type of immunity. | | | |
| b. What is lysogeny? Explain the mechanism of lysogeny. | 17 | 40 | 20 |

II. Write notes on:

- | | | | |
|---|---|----|---|
| 1. Explain in brief theory of central dogma. | 4 | 10 | 6 |
| 2. Auto immune diseases. | 4 | 10 | 6 |
| 3. Mechanism of action of anti-microbial agents. | 4 | 10 | 6 |
| 4. Various methods of isolation of bacteria. | 4 | 10 | 6 |
| 5. Sexual reproduction in fungi. | 4 | 10 | 6 |
| 6. Synchronous culture. | 4 | 10 | 6 |
| 7. Factor influence the immune response. | 4 | 10 | 6 |
| 8. Method of preservation of culture. | 4 | 10 | 6 |
| 9. Physical and chemical environment of microbial growth. | 4 | 10 | 6 |
| 10. Etiology, pathology and control of tuberculosis. | 4 | 10 | 6 |

[LB 356]

NOVEMBER 2012
M.PHARM. DEGREE EXAMS
FIRST YEAR

Sub. Code: 2917

BRANCH VI – PHARMACEUTICAL BIOTECHNOLOGY
PAPER II – PHARMACEUTICAL ASPECTS OF MICROBIAL
AND CELLULAR BIOLOGY

Q.P. Code : 262917

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, chemistry, morphology and reproduction of fungi. Write the Industrial importance of fungi.	17	40	20
2. Discuss the hypersensitivity reactions and auto immune diseases.	17	40	20

II. Write Notes on :

1. Synthesis of DNA.	4	10	6
2. Animal cell culture media.	4	10	6
3. Conjugation and Transduction.	4	10	6
4. Mechanism of action of anti-microbial agents.	4	10	6
5. Cultivation and enumeration of viruses.	4	10	6
6. Mutagenesis and repair mechanisms.	4	10	6
7. Etiology, Pathology and control of any two viral diseases.	4	10	6
8. Immuno-deficiency diseases.	4	10	6
9. Describe the fuelling reaction of aerobic organisms.	4	10	6
10. Actinomycetes.	4	10	6

[LC 356]

APRIL 2013

Sub. Code: 2917

M.PHARM. DEGREE EXAMS

FIRST YEAR

BRANCH VI – PHARMACEUTICAL BIOTECHNOLOGY
PAPER II – PHARMACEUTICAL ASPECTS OF MICROBIAL
AND CELLULAR BIOLOGY

Q.P. Code : 262917

Time : 3 hours

Maximum : 100 marks

I. Elaborate on :

(2x20=40)

1. Factors affecting bacterial growth and their applications
2. Compare the culturing of bacteria and viruses. Add a note on antiviral screening and synchronous growth.

II. Write notes on :

(10x6=60)

1. Industrially important actinomycetes
2. Fungal reproduction
3. Isolation of pure culture
4. Cell mediated immunity
5. Autoimmune diseases
6. Applications of mutation
7. Transcription
8. Pathology and treatment of any two viral diseases
9. Secondary metabolism
10. Plasmids

[LD 356]

OCTOBER 2013

Sub. Code: 2917

M.PHARM. DEGREE EXAMINATIONS
FIRST YEAR
BRANCH VI – PHARMACEUTICAL BIOTECHNOLOGY
PAPER II – PHARMACEUTICAL ASPECTS OF MICROBIAL
AND CELLULAR BIOLOGY

Q.P. Code : 262917

Time: Three Hours

Maximum: 100 marks

Answer ALL questions in the same order.

I. Elaborate on :

(2 x 20 = 40)

1. Describe the synthesis of DNA and Proteins. Add a note on Secondary metabolism and its applications.
2. Describe the various techniques for the cultivation of Primary culture. Write the application of cell culture in Pharmaceutical industry and research.

II. Write notes on :

(10 x 6 = 60)

1. Bio-energetics and Mechanism of ATP synthesis.
2. Fuelling reactions of anaerobic organisms
3. Structure and Reproduction of Bacteria.
4. Auto-immune diseases.
5. Hypersensitivity reactions.
6. Etiology, Pathology and control of any two viral diseases.
7. Mechanism of action of anti-microbial agents.
8. Immunization.
9. Mutagenesis and its applications in strain improvement.
10. Mechanism of microbial pathogenecity.

[LF 356]

OCTOBER 2014

Sub. Code: 2917

**M.PHARM. DEGREE EXAMINATION
FIRST YEAR
BRANCH VI – PHARMACEUTICAL BIO- TECHNOLOGY
PAPER II – PHARMACEUTICAL ASPECTS OF MICROBIAL AND
CELLULAR BIOLOGY**

Q.P. Code : 262917

Time : Three hours

Maximum : 100 marks

I. Elaborate on:

(2 x 20 = 40)

1. Write detail about asexual reproduction of bacteria and explain growth and cultivation of bacteria.
2. Classify immunity and describe active immunity and passive immunity with example

II. Write notes on:

(10 x 6 = 60)

1. Discuss about factors affecting disinfecting agent.
2. Define dye and explain different types of dyes with suitable example.
3. Classify fungi, with a note on economic importance of fungi.
4. Explain phagocytosis with its mechanism.
5. Define medium. What is the role of yeast extract, malt extract and agar in the medium?
6. Mechanisms of generating ATP.
7. Etiology and pathology of common microbial diseases.
8. Importance of nutrients for micro organism.
9. Explain the process of B – cell maturation, activation and differentiation.
10. Explain isolation of bacteria by pour plate technique and spread plate technique.
