

[KD 278]

APRIL 2001

M.Pharmacy DEGREE EXAMINATION.

(New Regulations)

First Year

Branch IV — Pharmacology

Paper II — PHARMACOLOGY

Time : Three hours

Maximum : 100 marks

Answer any FOUR questions.

All questions carry equal marks.

1. Discuss the various methods of transfer of drugs through biological barriers. (25)
2. Discuss the Drug-Drug Interaction and Food-Drug Interaction with suitable examples. (25)
3. Write short notes on any THREE : (25)
 - (a) Factors affecting renal excretion
 - (b) Bio availability and Bio equivalence
 - (c) Synthetic reaction in drug metabolism
 - (d) Biological Half-life.

4. Classify Antihypertensive drugs. Discuss the pharmacology of any two class of drugs. (25)
 5. Discuss the role of the clinical pharmacist. (25)
 6. Discuss the adverse reactions of drugs. (25)
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[KD 299] APRIL 2001

M.Pharmacy DEGREE EXAMINATION,

(Revised Regulations)

First Year

Branch IV — Pharmacology

Paper II — PHARMACOLOGY

Time : Three hours

Maximum : 100 marks

Answer ALL the questions.

All questions carry equal marks.

1. Discuss the various pathways of Biotransformation of drugs with suitable examples. (25)

2. Write short notes on any THREE : (25)

(a) Renal clearance.

(b) Plasma protein binding of drugs.

(c) Therapeutic index.

(d) Pharmacogenetics.

3. Discuss the pharmacological actions, toxicity and uses of oral hypoglycemic drugs. (25)

4. Classify sulphonamides. Discuss the mechanism of action, antimicrobial spectrum, toxicity and uses of sulphonamides. (25)

NOVEMBER 2001

[KE 278]

M.Pharm. DEGREE EXAMINATION.

(New Regulations)

First Year

Branch IV — Pharmacology

Paper II — PHARMACOLOGY

Time : Three hours

Maximum : 100 marks

Answer any FOUR questions.

All questions carry equal marks.

1. What is drug elimination? Describe briefly the processes of drug elimination. Discuss the kinetics of elimination and their importance in the monitoring of drug concentration in the body. (10 + 15 = 25)

2. Discuss in detail the mechanism of action of the following :

(a) Hypoglycaemic agents (12)

(b) Anticancer agents. (13)

3. (a) What is neurohumoral transmission? With neat pictures describe various steps and stages involved in the neurohumoral transmission of ANS. Explain how drugs affect this. (20)

(b) Write a short note on the 5-HT receptor. (5)

4. (a) Discuss the Pathophysiology and the Pharmacotherapy of Congestive Cardiac Failure. (15)

(b) Write briefly on Clinical trials. (10)

5. Write short note on the following :

(a) Rationale drug combinations (9)

(b) Therapeutic drug monitoring (8)

(c) Antagonism. (8)

6. Discuss the following :

(a) Factors affecting the metabolism of drugs. (10)

(b) Mechanisms of actions, toxicities and uses of morphine. (15)

NOVEMBER 2001

[KE 299]

M.Pharm. DEGREE EXAMINATION.

(Revised Regulations)

First Year

Branch IV — Pharmacology

Paper II — PHARMACOLOGY

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

All questions carry equal marks.

1. Discuss the pharmacological actions, mechanisms and adverse effects of non-steroidal anti-inflammatory drugs. (25)
2. Describe the cholinergic drugs, emphasising on their mechanisms of action and their therapeutic and toxic potential. (25)
3. Discuss the pharmacology of cardio tonic drugs. (25)

4. Write notes on:

(a) Antitussive drugs

(b) Glucocorticoids

(c) Oral anticoagulants.

(8 + 9 + 8 = 25)

[KH 278] SEPTEMBER 2002

M.Pharm. DEGREE EXAMINATION.

(New Regulations)

First Year

Branch IV — Pharmacology

Paper II — PHARMACOLOGY

Time : Three hours

Maximum : 100 marks

Answer any FOUR questions.

All questions carry equal marks.

1. Discuss the role of physiological and pathological factors influencing drug metabolism.
2. Enumerate various types of drug interactions. Discuss two clinically important drug interactions — Suggest measures for prevention of such interactions.
3. Discuss the mechanism of adrenergic transmission? Explain how chonidine, ephedrine, cocaine and propranolol effect such mechanisms to produce their respective therapeutic activities.
4. Describe the pharmacology of
 - (a) Opioid peptides
 - (b) Bradykinin.

5. Describe the mechanism of action, pharmacological actions and toxicology of

- (a) Paracetamol (6)
- (b) Chlorpropamide (6)
- (c) Oestrone (6)
- (d) Streptomycin. (7)

6. Write short notes on the following :

- (a) Drug treatment for angina (6)
- (b) Tachyphylaxis (6)
- (c) Therapeutic drug monitoring (7)
- (d) Patient counselling. (6)

SEPTEMBER 2002

[KH 299]

M.Pharm. DEGREE EXAMINATION.

(Revised Regulations)

First Year

Branch IV — Pharmacology

Paper II — PHARMACOLOGY

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

All questions carry equal marks.

1. Describe drug absorption, distribution and elimination processes. Explain and discuss the kinetics of elimination and outline its importance in monitoring drug levels in the body. (10 + 15 = 25)

2. (a) Describe what is drug-drug interaction? Give suitable examples of such drug interactions involving cardio vascular, antibiotics and anti-inflammatory drugs.

(b) Explain and discuss what is adverse drug reactions and the role of adverse drug reactions monitoring. (12 + 13 = 25)

3. Discuss in length the mechanisms of action of the following :

(a) Anti-inflammatory drugs. (13)

(b) Anti-fertility Agents. (12)

4. (a) What are the basic principles of clinical pharmacology? What are clinical trials? (15)

(b) Write briefly on 5HT receptors and pharmacological activity of drugs interacting with 5 HT receptors. (10)

[KI 299] APRIL 2003 Sub. Code : 1011

M.Pharm. DEGREE EXAMINATION.

(Revised Regulations)

First Year

Branch IV — Pharmacology

Paper II — PHARMACOLOGY

Time : Three hours Maximum : 100 marks

Answer ALL questions.

All questions carry equal marks.

1. Describe drug distribution? Explain briefly different processes of drug distribution. Discuss drug transport mechanisms across the biological membrane and their implication in the bioavailability of drug.

(5 + 10 + 10 = 25)

2. (a) Explain microsomal and nonmicrosomal biotransformation reactions.

(b) Discuss various factors affecting metabolism (give suitable examples)

(10 + 15 = 25)

3. Discuss in detail the mechanisms of action of the following :

(a) Hypoglycemic agents (8)

(b) Anti-inflammatory agents (8)

(c) Immuno suppressants. (9)

4. (a) What is neurohumoral transmission? Draw a neat diagram and describe various events/steps and stages associated in the neurohumoral transmission in ANS. Also explain how drugs affect this neurotransmission. (20)

(b) Write briefly on the pharmacological actions of prostaglandins. (5)

OCTOBER 2003

[KJ 299]

Sub. Code : 1011

M.Pharm. DEGREE EXAMINATION.

(Revised Regulations)

First Year

Branch IV — Pharmacology

Paper II — PHARMACOLOGY

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

All questions carry equal marks.

1. (a) Describe the structure of the biological layer. Explain various factors that affect the movement of a drug across the biological membrane. (10)

(b) Explain briefly how drugs are biologically transformed. Discuss with examples how the genetic factors modify the drug metabolism. (15)

2. Write briefly on the following :

(a) In-vitro studies for drug metabolism. (12)

(b) ADR and their monitoring. (13)

3. Discuss in detail the mechanisms of actions of the following :

(a) Chemotherapeutic agents. (15)

(b) Oral contraceptives. (10)

4. (a) Describe the pathophysiology and the Pharmacotherapy of Congestive Cardiac Failure. (15)

(b) Explain the aims and objectives of Patient Counseling. (10)

APRIL 2004

[KK 299]

Sub. Code : 1011

M.Pharm. DEGREE EXAMINATION

(Revised Regulations)

First Year

Branch IV — Pharmacology

Paper II — PHARMACOLOGY

Time : Three hours

Maximum : 100 marks

Sec. A & B : Two hours and

Sec. A & B : 80 marks

Forty minutes

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

Long essay :

(2 × 15 = 30)

1. Classify the drugs employed in neoplastic disorders. Explain briefly the mechanism of actions of each class. Add a note on their main toxicity.

2. What is arrhythmia? What are the major arrhythmias? Classify anti-arrhythmic drugs with suitable examples. Describe the mechanism of action of each major group of anti arrhythmic drug.

Short notes :

(10 × 5 = 50)

3. Describe the sequence of events in the transmission and conduction of nerve impulses across a peripheral adrenergic nerve.

4. Discuss various types of drug interactions with examples.

5. How do you determine the half life of a drug and explain its clinical significance?

6. Write briefly on Biotransformation of drugs by microsomal enzymes.

7. Write briefly on Hypersensitivity.

8. Describe the mechanism of action of NSAIDs as analgesics and anti inflammatory agents.

9. Mention various phases of clinical trials and explain objectives.

10. Describe the factors affecting absorption of a drug.

11. Describe the physiological role and uses of prostaglandins.

12. Write a note on patient counselling.

[KL 299] AUGUST 2004 Sub. Code : 1011

M.Pharm. DEGREE EXAMINATION.

(Revised Regulations)

First Year

Branch IV — Pharmacology

Paper II — PHARMACOLOGY

Time : Three hours Maximum : 100 marks

Sec. A & B : Two hours and forty minutes Sec. A & B : 80 marks

M.C.Q. : Twenty minutes M.C.Q. : 20 marks

Answer ALL questions.

SECTION A — (2 × 15 = 30 marks)

Long essay :

1. Describe drug elimination process. Discuss kinetics of elimination and their relevance in the monitoring of drug levels in the body.
2. Discuss drug metabolism under physiological, pathological and pharmacogenetics conditions.

SECTION B — (10 × 5 = 50 marks)

Short notes on :

3. Beta-lactam antibiotics.
4. Cholesterol lowering agents.
5. Anti-fertility agents.
6. Clinical trials.
7. Drug-Drug interaction.
8. Tolerance, Addiction and habituation.
9. Write briefly on the 5 HT – receptors.
10. Describe microsomal biotransformation reactions.
11. Serotonin.
12. Cyclic 3' – 5' AMP.

FEBRUARY 2005

[KM 299]

Sub. Code : 1011

M.Pharm.DEGREE EXAMINATION,

(Revised Regulations)

First Year

Branch IV — Pharmacology

Paper II — PHARMACOLOGY

Time : Three hours

Maximum : 100 marks

Sec. A & B : Two hours and

Sec. A & B : 80 marks

forty minutes

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

SECTION A — (2 × 15 = 30 marks)

Long Essay:

1. Classify antihypertensives with examples. Describe pharmacotherapy of hypertension and write mechanism of antihypertensive action of prototype agent of each class.
2. What is atherosclerosis? Describe metabolic changes of lipoprotein and pharmacotherapy of the disease. Write on mechanism of action and pharmacology of colesvelam and atorvastatin.

FEBRUARY 2005

SECTION B — (10 × 5 = 50 marks)

Short notes:

3. Explain drug protein binding combination and describe factors influencing protein binding.
 4. Describe the process of renal excretion and write on the concept of renal clearance of protein bound drug.
 5. Describe up and down regulation of hepatic metabolism.
 6. What is inflammation? Describe mechanism of action and pharmacology of two newer agents used to treat osteoarthritis and rheumatoid arthritis.
 7. Describe adrenergic neurotransmission and explain mechanism of action and specific uses of metaraminol, α methyl dopa.
 8. Write on principles involved in designing clinical trial and describe Phase IV clinical trial.
 9. Describe role of pharmacist in therapeutics and write on therapeutic drug monitoring.
 10. Write on combination oral contraceptives, mechanism of action, adverse effects and preparations.
 11. Explain the drug interactions:
 - (a) lidocaine + propranolol
 - (b) terfenadine + erythromycin
 - (c) Food + lopinavir
 - (d) sildenafil + nitroglycerin
 - (e) imipenem + cilastatin.
 12. Classify immunosuppressants used for organ transplantation and write on pharmacology of azathioprine and mycophenolate mofetil.
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AUGUST 2005

[KN 299]

Sub. Code : 1011

M.Pharm. DEGREE EXAMINATION

(Revised Regulations)

First Year

Branch IV — Pharmacology

Paper II — PHARMACOLOGY

Time : Three hours

Maximum : 100 marks

**Theory : Two hours and
forty minutes**

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

I. Long Essay : (2 × 15 = 30)

1. Discuss the neurotransmitters in the CNS giving their functions, actions and the receptors they act upon.
2. Discuss in detail the mechanisms of actions of the chemotherapeutic agents

II. Write Short notes on : (10 × 5 = 50)

1. Plasma protein binding of drugs.
2. Pharmacokinetic drug interactions.
3. Monitoring of adverse drug reactions.
4. Cyclic AMP.
5. HMG-CoA-reductase inhibitors.
6. Cyclosporin.
7. COX-2 inhibitors.
8. Therapeutic drug monitoring.
9. Pathophysiology of congestive cardiac failure.
10. Aminoglycoside antibiotics.

[KO 299] MARCH 2006 Sub. Code : 1011

M.Pharm. DEGREE EXAMINATION.

(Revised Regulations)

First Year

Branch IV — Pharmacology

Paper II — PHARMACOLOGY

Time : Three hours Maximum : 100 marks

**Theory : Two hours and Theory : 80 marks
forty minutes**

M.C.Q. : Twenty minutes M.C.Q. : 20 marks

Answer ALL questions.

Long Essay : (2 × 15 = 30)

(1) Classify various adverse drug reactions. Describe the various manifestation of adverse drug reaction. Discuss the various methods adopted to monitor adverse drug reactions.

(2) Describe the pathophysiology of diabetes mellitus. Discuss the preparation and pharmacology of insulin and oral hypoglycemic agents.

II. Short notes : (10 × 5 = 50)

(1) Discuss the concept of renal clearance and its importance.

(2) Discuss the phase II drug metabolism reactions.

(3) Describe the pharmacogenetic factors which influence the drug action.

(4) Discuss the pharmacology of prostaglandins.

(5) Discuss the laws and ethics pertaining to clinical trials and testing of drugs in humans.

(6) Describe the cholinergic neuro transmission and describe the uses of anticholestrase drugs.

(7) Classify immuno suppressants and discuss their uses.

(8) Classify non-Steroidal anti inflammatory agents. Describe their toxicity and clinical use.

(9) Describe the mechanism of action of Beta lactum antibiotics.

(10) Classify antihypertensive agents. Discuss the pharmacology of angiotensin converting enzyme (ACE) inhibitors.

SEPTEMBER 2006

[KP 299]

Sub. Code : 2821

M.Pharm. DEGREE EXAMINATION.

(Revised Regulations)

First Year

Branch IV – Pharmacology

Paper II — PHARMACOLOGY

Time : Three hours

Maximum : 100 marks

**Theory : Two hours and
forty minutes**

Theory : 80 marks

M. C. Q : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

I. Long Essay:

1. (a) Clinical uses of immunosuppressants.

(b) General mechanisms of chemotherapeutic agents. (10 + 10 = 20)

2. Explain various mechanisms of drug interaction with one example each. Mention 5 interactions involving cardiovascular drugs. (15)

3. Clinical Trial of a new drug molecule. (15)

II. Write short notes on :

(6 × 5 = 30)

1. Vasodilators and angina pectoris

2. Factors affecting drug absorption.

3. COX-2 inhibitors.

4. Cimetidine.

5. Role of clinical pharmacist.

6. Histamine-synthesis and pharmacology.

M.Pharm. DEGREE EXAMINATION.

(Revised Regulations)

First Year

Branch IV — Pharmacology

Paper II — PHARMACOLOGY

Time : Three hours Maximum : 100 marks

Theory : Two hours and Theory : 80 marks
forty minutes

M.C.Q. : Twenty minutes M.C.Q. : 20 marks

Answer ALL questions.

I. Long Essay :

1. What are sympathomimetics? Describe the therapeutic classification of sympathomimetics with examples. Explain the mechanism of action, pharmacological actions and uses of amphetamine. (20)

2. Define hypertension. Classify antihypertensive agents with examples. Describe the current status of 'ACE' inhibitors and suggest a stepwise programme for management or treatment of hypertension. (15)

3. Describe patho physiology of Diabetes Mellitus. Discuss the preparation and pharmacology of insulin and oral hypoglycoemic agents. (15)

II. Short notes : (6 × 5 = 30)

1. Describe the mechanism of action, adverse effects and uses of mefenamic acid.

2. Describe the factors affecting drug metabolism.

3. Classify hypoglycoemic agents with examples. Describe the untoward effects and uses of insulin.

4. What are antineoplastic agents? Describe pharmacology of 5-fluoro uracil.

5. Classify antitubercular drugs with examples and justify the use of combination therapy in the treatment of tuberculosis.

6. Describe the mechanism of action, adverse effects and therapeutic uses of gentamicin.

MARCH 2007

[KQ 325]

Sub. Code : 2861

M.Pharm. DEGREE EXAMINATION.

(Regulations 2006)

First Year

Branch IV — Pharmacology

Paper II — PHARMACOLOGY

Time : Three hours Maximum : 100 marks

Theory : Two hours and Theory : 80 marks
forty minutes

M.C.Q. : Twenty minutes M.C.Q. : 20 marks

Answer ALL questions.

I. Long Essay : (1 × 20 = 20)

1. What is hypertension? Classify the drugs used with examples and describe the current status of clonidine, lisinopril and amlodipine in the treatment of hypertension.

II. Long Essay : (2 × 15 = 30)

1. What are anti convulsants? Classify them with examples; describe the mechanism of action, pharmacological actions and therapeutic uses of carbamazepine.

2. Classify analgesics and anti inflammatory agents with examples. Describe the mechanism of action, adverse drug reactions, and pharmacological actions of mefenamic acid and valdecoxib.

III. Short notes : (6 × 5 = 30)

1. Describe the different phases of Clinical trial.

2. Explain interaction of clavulanic acid with amoxicillin and justify its use.

3. Write notes on biotransformation of drugs.

4. Classify anti histaminic drugs with examples.

5. Write notes on skeletal muscle relaxants.

6. Describe the mode of action and therapeutic uses of tamoxifen.

SEPTEMBER 2007

[KR 299]

Sub. Code : 2821

M.Pharm. DEGREE EXAMINATION.

(Revised Regulations)

First Year

Branch IV — Pharmacology

Paper II — PHARMACOLOGY

Time : Three hours Maximum : 100 marks

Theory : Two hours and Theory : 80 marks
forty minutes

M.C.Q. : Twenty minutes M.C.Q. : 20 marks

Answer ALL questions.

I. Long Essay :

1. What is Biotransformation? Explain various reactions involved in biotransformation process with suitable examples. Add a note on renal character. (20)
2. Discuss the electrophysiology of heart. Explain how different classes of drugs affect the cardiac functions through their influence on the electrophysiology of heart. (15)
3. Define the terms Bio-availability and Bio-equivalences. Describe the parameters and the method of BABE studies. Discuss the major factors that modify the bio-availability of drugs. (15)

II. Write short notes :

(6 × 5 = 30)

1. Steady State Level of drugs and its applications in therapeutics.
2. Mechanisms of pharmacodynamic drug interactions.
3. Signaling mechanisms of insulin receptor.
4. Ethics committee's composition and functions.
5. Cyclosporine.
6. Mechanisms of action of antiviral agents.

SEPTEMBER 2007

[KR 325]

Sub. Code : 2861

M.Pharm. DEGREE EXAMINATION.

First Year

Branch IV — Pharmacology

Paper II — PHARMACOLOGY AND TOXICOLOGY

Time : Three hours

Maximum : 100 marks

Theory : Two hours and
forty minutes

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

I. Long Essay :

1. Describe the physiology of urine formation. Classify diuretics based on the site of action with examples and describe the mechanism of action and therapeutic uses of bumetanide and amiloride. (20)
2. Describe the pathophysiology of congestive cardiac failure. Describe the mechanism of action and toxicity of cardiac glycosides. (15)
3. Describe the mechanism of action, adverse effects and therapeutic uses of benzodiazepines. Add a note on the current status of barbiturates in CNS disorders. (15)

II. Short notes :

(6 × 5 = 30)

1. Management of organophosphorous compound poisoning.
2. What is therapeutic drug monitoring? Describe the criteria involved.
3. Mechanism of action and uses of fluoroquinolones.
4. First line anti tubercular agents.
5. Mechanism of action and uses of alkylating agents.
6. Factors affecting drug absorption.

September 2008

[KT 325]

Sub. Code : 2861

M.Pharm. DEGREE EXAMINATION.

First Year

(Regulations 2006)

Branch IV — Pharmacology

Paper II — PHARMACOLOGY AND TOXICOLOGY

Q.P. Code : 262861

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

I. Long Essays : (3 × 20 = 60)

1. Classify the receptors. Write in detail about structural and functional aspects of receptors. Add a note on Drug-Receptor Theory.

2. With a neat sketch, discuss the various phases of a clinical trial. Differentiate NDA from ANDA.

3. List out types of Drug-Drug interaction. Write briefly about useful and harmful drug interactions. add a note on drug-food interactions.

II. Write short notes :

(8 × 5 = 40)

1. Advantages and disadvantages of plasma protein binding of drugs
2. Phase-II metabolic reactions
3. Neurohumoral transmission in ANS
4. Pharmacology of digitalis
5. Prostaglandins
6. Proton pump inhibitors
7. NSAID - pharmacology
8. Broad spectrum antibiotics.

March 2009

[KU 325]

Sub. Code: 2861

**M.PHARM. DEGREE EXAMINATION
(Regulations 2006)**

Candidates admitted from 2006-2007 onwards

FIRST YEAR

Branch IV – PHARMACOLOGY

Paper II – PHARMACOLOGY AND TOXICOLOGY

Q.P. Code : 262861

Time : Three hours

Maximum : 100 marks

Answer All questions

I. Essay Questions : (3 x 20 = 60)

1. Classify non-steroidal anti-inflammatory drugs (NSAIDs). Discuss the mechanism of action and therapeutic uses of NSAIDs.
Why therapeutic use of cyclooxygenase-II selective NSAIDs is limited.
2. Discuss different theories that explain molecular/biochemical basis of epilepsy. Describe the present strategies of treatment of grandmal epilepsy.
3. Classify oral hypoglycemic agents with examples. Discuss their mechanism of action and unwanted effects.

II. Write Short Notes : (8 x 5 = 40)

1. Explain the influence of pH and partition coefficient on drug absorption.
2. Write the physiological role and consequences of deficiency of superoxide desmutase.
3. Discuss the mechanism of action and therapeutic effects of tricyclic anti depressants.
4. Describe the mechanism of action, therapeutic uses and adverse effects of ACE inhibitors.
5. Classify skeletal muscle relaxants. Describe the mechanism of action of d-tubocurarine.
6. Explain about 5-HT agonists and antagonists.
7. Explain how aspirin acts as an antiplatelet agent.
8. Explain briefly about therapeutic drug monitoring.

September 2009

[KV 325]

Sub. Code: 2861

**M.PHARM. DEGREE EXAMINATION
(Regulations 2006)**

Candidates admitted from 2006-2007 onwards

FIRST YEAR

Branch IV – PHARMACOLOGY

Paper II – PHARMACOLOGY AND TOXICOLOGY

Q.P. Code : 262861

Time : Three hours

Maximum : 100 marks

Answer All questions

I. Essay Questions :

(3 x 20 = 60)

1. Describe the pathophysiology of congestive cardiac failure. Describe the mechanism of action, pharmacological actions and toxicity of digitalis.
2. Classify antibiotics based on their site of action with examples. Describe the mechanism of action, spectrum of activity and therapeutic uses of cefuroxime. What is the use of clavulanic acid?
3. Describe the mechanism of action, adverse effects and therapeutic uses of benzodiazepines. Add a note on the current status of barbiturates in CNS disorders.

II. Write Short Notes :

(8 x 5 = 40)

1. Biotransformation of drugs.
2. Describe the drug therapy of tuberculosis.
3. Describe the cardiovascular effects of catecholamines.
4. Mechanism of action and uses of acetylsalicylic acid.
5. Classify skeletal muscle relaxants. Describe the mechanism of action of gallamine.
6. Classify drugs used in the treatment of bronchial asthma with examples.
7. Describe the mechanism of action and therapeutic uses of ciprofloxacin.
8. Describe the management of heavy metal poisoning.

March 2010

[KW 325]

Sub. Code: 2861

**M.PHARM. DEGREE EXAMINATION
(Regulations 2006)**

Candidates admitted from 2006-2007 onwards

FIRST YEAR

Branch IV – PHARMACOLOGY

Paper II – PHARMACOLOGY AND TOXICOLOGY

Q.P. Code : 262861

Time : Three hours

Maximum : 100 marks

Answer All questions

I. Essay Questions : (3 x 20 = 60)

1. Classify skeletal muscle relaxants based on the site of action with examples. Describe the mechanism of action, pharmacological actions and therapeutic uses of gallamine.
2. Describe the different phases of action potential in cardiac tissue with the help of a neat sketch and explain the possible causes of arrhythmias. Classify the antiarrhythmics with examples and describe the pharmacology of quinidine.
3. Classify analgesics with examples. Describe the mechanism of action, adverse drug reaction and pharmacological actions of mefenamic acid and tramadol.

II. Write Short Notes : (8 x 5 = 40)

1. Factors affecting drug metabolism.
2. Describe the mechanism of action and therapeutic uses of phenytoin.
3. Symptoms and management of organophosphorus compound poisoning.
4. Describe the steps of neurotransmission in sympathetic nervous system.
5. Mechanism of action and uses of 5 fluoro uracil.
6. Describe the structural and functional aspects of receptors.
7. What are the different phases of clinical trials? Describe any one phase.
8. Define pharmacodynamic drug interaction. Explain with the help of examples.

September 2010

[KX 325]

Sub. Code: 2861

M.PHARM. DEGREE EXAMINATION

(Regulations 2006)

(Candidates admitted from 2006-2007 onwards)

FIRST YEAR

Branch IV – PHARMACOLOGY

Paper II – PHARMACOLOGY AND TOXICOLOGY

Q.P. Code : 262861

Time : Three hours

Maximum : 100 marks

Answer All questions

I. Essay Questions :

(3 x 20 = 60)

1. a) Define the term biotransformation and explain phase II metabolic reactions.
b) Discuss the mechanism of metabolism induction and inhibition citing examples.
2. a) Classify Non Steroidal Anti-Inflammatory Drugs (NSAIDS).
Discuss the mechanism of action and therapeutic effects of NSAIDS.
Why therapeutic use of COX-2 selective NSAIDS is limited.
3. a) Explain the biochemical molecular basis of Schizophrenia.
b) Classify the drugs used in Schizophrenia with suitable examples and explain the pharmacology of chlorpromazine.

II. Write Short Notes :

(8 x 5 = 40)

1. Explain about HMG-COA reductase inhibitors.
2. Write a note on Macrolide antibiotics.
3. Classify immunosuppressants and discuss their uses.
4. Discuss the concept of renal clearance and its importance.
5. Classify the drugs used in bronchial asthma and explain briefly the pharmacology of methyl xanthines.
6. How do benzodiazepines act as anxiolytics.
7. Write short notes on Fluoroquinolones.
8. Describe the management of heavy metal poisoning.

MAY 2011

[KY 325]

Sub. Code: 2861

M.PHARM. DEGREE EXAMINATION

(Regulations 2006)

(Candidates admitted from 2006-2007 onwards)

FIRST YEAR

Branch IV – PHARMACOLOGY

Paper II – PHARMACOLOGY AND TOXICOLOGY

Q.P. Code : 262861

Time : Three hours

Maximum : 100 marks

Answer All questions

I. Essay Questions :

(3 x 20 = 60)

1. a) Classify sympathomimetic drugs with examples. (5)
b) Mention the types of adrenergic receptors; explain the responses produced on stimulation of these receptors and the cellular mechanism. (15)
2. a) Draw the schematic diagram of a nephron and classify the drugs according to their site of action. (10)
b) Mention the mechanism of action of thiazide diuretics. (5)
c) Mention the therapeutic uses and toxicities of diuretics. (5)
3. a) Define arrhythmias and classify anti-arrhythmic drugs. (5)
b) Describe the generation of dysrhythmias. (5)
c) Explain the mechanism of action and adverse effects of calcium channel blockers. (10)

II. Write Short Notes :

(8 x 5 = 40)

1. Plasma protein binding.
2. H₂ receptor antagonists.
3. Fluoroquinolones uses and adverse effects.
4. Mechanism of actions of drugs used in the treatment of gout.
5. Symptoms and treatment of barbiturate poisoning.
6. Bioassay of oxytocin.
7. Role of multidrug combinations in the chemotherapy of tuberculosis.
8. Beta-lactamases enzyme inhibitors.
