

FIRST M.Pharm. DEGREE EXAMINATION, SEPTEMBER 1991.

Special Papers

Specialisation D — Pharmacology

Paper II — PHARMACOLOGY

Time : Three hours.

Maximum : 100 marks.

Answer any FOUR questions.

All questions carry equal marks.

1. Give a brief account of how disease processes influence pharmacokinetics and pharmacodynamics.
 2. Describe the pharmacology of benzodiazepines.
 3. Briefly outline the recent advances in the chemotherapy of Acquired Immuno Deficiency Syndrome (AIDS)
 4. Write briefly on :
 - (a) Newer positive inotropic agents.
 - (b) Hormone antagonists.
 5. Write short notes on :
 - (a) Drug ototoxicity.
 - (b) Sunscreens.
 - (c) Drug reservoir.
 - (d) Newer quinolones.
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M.PHARM. DEGREE EXAMINATION, MARCH, 1992

FIRST YEAR

SPECIALISATION D - PHARMACOLOGY

PAPER II - PHARMACOLOGY

Time: Three hours

Maximum Marks:100

Answer any FOUR questions

All questions carry equal marks

1. Describe the cellular actions of organic nitrates and modulation of vascular responses by Endothelium Derived Relaxation Factor.
2. Enumerate the peptide hormones present in the body and discuss the pharmacological role played by cholecystokinin and its antagonists.
3. Write briefly on:
 1. Renin-Angiotensin and its antagonists
 2. Agents affecting pigmentation
4. Give an account of the 'drugs and the elderly' - Adverse reactions, abuse and over dosage.
5. Explain the neuro-endocrine role of serotonin.
6. Discuss the following:
 1. Treatment of opiate addiction with Buphenorphine over methadone.
 2. Omeprazole over H_2 blockers.
 3. Atrial Natriuretic Factor in Hypertension and congestive cardiac failure.
 4. Myopathy caused by Zidovudine.

[ND 284]

NOVEMBER 1994

M.Pharm. DEGREE EXAMINATION.

(New Regulations)

First Year

Branch IV — Pharmacology

PHARMACOLOGY

Time : Three hours

Maximum : 100 marks

Answer any FOUR questions.

All questions carry equal marks.

1. Discuss the advantages and limitations of the following routes for the administration of drugs for systemic action.

(a) Skin (b) Rectum (c) Sublingual.

2. (a) Write on the plasma protein binding of drugs with reference to the intensity and duration of their action.

(b) Write on the renal clearance of drugs and its significance.

3. Describe with an illustration and mechanism (if known) the tonic effects of drugs encountered in clinical practice with people associated with the deficiency of the following :

(a) Glucose-6-phosphate dehydrogenase

(b) Acetylating enzymes

(c) Pseudo or true cholinesterase.

[ND 284]

4. Describe the formation and/or release, pharmacological actions and physiological role of prostaglandins in the body.

5. Classify the nonsteroidal anti-inflammatory drugs and describe the pharmacological actions, therapeutic uses and toxicity of salicylates.

6. Describe how a clinical trial is conducted for a promising new compound for a particular disease.

APRIL 1995

[SB 313]

M.Pharm. DEGREE EXAMINATION.

First Year

(New Regulations)

Branch IV — Pharmacology

PHARMACOLOGY

Time : Three hours

Maximum : 100 marks

Answer any FOUR questions.

All questions carry equal marks.

1. Describe the physiological factors and formulation aspects that affect the absorption of drugs in the gastrointestinal tract.
2. Write on
 - (a) Structure of biological membrane and transfer of drugs across it.
 - (b) Therapeutic drug monitoring and its applications.
3. Give a classification of different drug interactions giving examples and explaining the pharmacokinetic and/or pharmacodynamic mechanism involved in each of them.
4. Describe the sequence of events in the transmission of impulse across a cholinergic synapse and how it is modified by the presence of various drugs.

[SB 313]

5. Describe the mechanism of action of anti-neoplastic drugs taking one drug of any class for illustration. What are the usual toxic effects of administration of these drugs?

6. What is atherosclerosis? Classify the different drugs used in the treatment of atherosclerosis based on their mechanism of action.

Write on the actions and use of clofibrate.

[AK 314]

APRIL 1996

M.Pharm. DEGREE EXAMINATION.

(New Regulations)

First Year

Branch IV — Pharmacology

PHARMACOLOGY

Time : Three hours

Maximum : 100 marks

Answer any FOUR questions.

All questions carry equal marks.

1. Describe various factors which influence the pharmacokinetic and pharmacodynamic effects of a drug.
2. Mention the steroids produced in adrenal cortex. What are the physiological and pharmacological actions of glucocorticoids? Describe their therapeutic applications. Add a note on abuse of corticosteroids.
3. Discuss the mechanism involved in the formation, release and physiological role of prostaglandins.
4. Describe the classification, pharmacological actions and therapeutic uses of anti-arrhythmic agents.
5. Classify drugs influencing the parasympathetic nervous system. Describe the pharmacological actions and therapeutic uses of skeletal muscle relaxants.
6. Classify anti-diabetic agents and describe the pharmacological actions, therapeutic uses and drug interactions of anti-diabetic agents.

OCTOBER 1996

PK 210

M. PHARM DEGREE EXAMINATION

(New Regulations)

Branch IV - PHARMACOLOGY

Paper I- PHARMACOLOGY

Time: Three hours

Max. marks: 100

Answer any FOUR questions

All questions carry equal marks

1. Describe a typical bioavailability study in humans. Write a note on therapeutic drug monitoring.
2. Describe the biochemical mechanism of insulin action. List the currently available insulin preparations available in the market.
3. Describe the various phases of clinical trials and how they help in bringing a novel therapeutic agent into the market. You can choose an example.
4. Classify antianginal agents. Discuss the mechanism of action of currently available antianginal agents.
5. What would be your strategy to introduce clinical pharmacy practice in India? Discuss in length.
6. Write an essay on free radicals in biology.

APRIL 1997

M.Pharm Degree Examination

(New Regulations)

MP 262

First year

Branch IV - Pharmacology

Paper II - Pharmacology

Time: Three hours

Max.marks:100

Answer any FOUR questions

All questions carry equal marks

1. Describe in detail the various factors affecting drug absorption.
Explain the factors affecting the absorption of tetracyclines.
2. Discuss the importance of bioavailability studies in the development of a new drug formulation.
3. Describe the mechanism of action of anti-inflammatory agents.
Discuss the pharmacology and toxicology of Indomethacin.
4. Give an account of drug-drug interactions. Explain the role of clinical pharmacist in monitoring adverse drug reactions.
5. Describe the mechanism involved in the formation and release, pharmacological actions and possible physiological role of
 - (a) Prostaglandins
 - (b) Cyclic 3' - 5' AMP
6. Write notes on:
 - (a) Biological half life
 - (b) Immunosuppressive agents.

MS 246

OCTOBER 1997
M.Pharm. DEGREE EXAMINATION
(New Regulations)
First Year
Branch IV - Pharmacology
Paper II - PHARMACOLOGY

Time: Three hours

Max. marks:100

Answer any FOUR questions
All questions carry equal marks.

1. Write briefly on the importance of studying drug interactions. Give examples wherever necessary.
2. Describe in detail the current understanding of second messenger action.
3. Classify anticancer agents. Describe the mechanism of action of any one class.
4. Describe the various processes by which drugs are transported from the site of administration to the site of action and excretion.
5. Classify anti hyperlipidemic agents. Discuss the mechanism involved in anti atherosclerotic effect.
6. Mention the hormones produced by the anterior pituitary gland. What are the physiological and pharmacological actions of thyroid hormones? Describe their therapeutic applications.

[SV 278]

APRIL 1998

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 Biotransformation of drugs. Describe the factors influencing drug metabolism.
 2. Describe the principles of Clinical Pharmacology. How will you design clinical trials for testing an antihypertensive drug in humans?
 3. Elucidate the different types of drug interactions. Mention the drugs which should be avoided during pregnancy giving reasons.
 4. Write down in detail the mechanism of action, Pharmacology and toxicology of alkylating agents.
 5. Describe the aetiology, pathophysiology and treatment of Angina Pectoris.
 6. Write briefly on :
 - (a) Therapeutic Drug Monitoring.
 - (b) Oral Contraceptives.
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[KA 278]

OCTOBER 1999

M.Pharm. DEGREE EXAMINATION.

(New Regulations)

First Year

Branch IV — Pharmacology

Paper II — PHARMACOLOGY

Time : Three hours

Maximum : 100 marks

Answer any FIVE questions.

All questions carry equal marks.

1. (a) Distinguish Bioavailability from bioequivalence. (4)

(b) Describe the procedure to be followed for evaluating Bioequivalence of four brands of sustained release Theophylline formulations with a suitable design. (16)

2. (a) Describe the mechanism of drug absorption. (10)

(b) Discuss the physiological factors affecting drug absorption. (10)

3. (a) Describe the various phase-II metabolic reaction of drugs with suitable examples. (8)

(b) Discuss the factors influencing drug metabolism. (12)

4. (a) Describe the Pharmacology of Histamine. (10)

(b) Discuss the Pharmacology and Therapeutic uses of oral antidiabetic drugs. (10)

5. Write short notes on any FOUR of the following : (4 × 5 = 20)

(a) Prostaglandins

(b) Immunosuppressants

(c) Antineoplastic agents

(d) Pharmacology of Acetylcholine

(e) Human insulin

(f) Anti-inflammatory agents.

6. (a) Discuss the Pharmacotherapy of 'Hypertension'. (10)

(b) Discuss the Etiology and Pharmacotherapy of cardiac arrhythmias. (10)

7. (a) Discuss the role of Pharmacist in therapeutic drug monitoring. (10)

(b) Write short notes on "Drug Information Service". (10)

APRIL 2000

[KB 278]

M. Pharm. DEGREE EXAMINATION.

(New Regulations)

First Year

Branch IV — Pharmacology

Paper II — PHARMACOLOGY

Time : Three hours APR '2000 Maximum : 100 marks

Answer any FOUR questions.

All questions carry equal marks.

1. What is bioavailability? Discuss the factors that affect the bioavailability of a drug from a dosage form. How is bioavailability of a drug evaluated?
2. Discuss Phase I reactions with suitable examples. Explain how Isoniazid and Paracetamol produce hepatotoxicity.
3. Discuss the biosynthesis, storage and release of Noradrenaline from adrenergic nerves. How is its action terminated? Mention the drugs that influence its action and the mechanism involved.

4. Classify non-steroidal anti-inflammatory drugs. Discuss the mechanism of action, pharmacological actions and adverse effects of salicylates.

5. Discuss the mechanism of action of antimicrobial agents. What are the methods by which microorganisms develop resistance to antimicrobials?

6. Write notes on :

- (a) Regulation of blood pressure and aetiology of hypertension.
- (b) Drug information service
- (c) Hypersensitivity.

[KC 278] OCTOBER 2000

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. Explain the various invitro and in-situ methods of studying drug absorbtion.
2. Describe the various techniques of studying protein binding of drugs. What are the factors affecting plasma protein binding of drugs.
3. Write down in detail the mechanism of action, pharmacology and toxicology of anti-fertility agents.
4. Write notes on :
 - (a) Renal clearance and excretion of drugs
 - (b) Bio availability and bio equivilance
 - (c) Extra hepatic drug metabolism.

5. (a) Give an account of the legal and ethical regulations to be followed in conducting bio availability studies in humans.

(b) Discuss briefly about Idiosyncrasy.

6. Name the inhibitory neuro transmitters released in the C.N.S. Describe the pharmacological action, toxicity and therapeutic uses of Barbiturates. What are the withdrawal symptoms of barbiturates?