

**DOCTOR OF PHARMACY (PHARM. D) DEGREE EXAMINATION
(2009-2010 Regulation)**

SECOND YEAR

PAPER IV – PHARMACOLOGY – I

Q.P. Code: 383810

Time: Three Hours

Maximum: 100 marks

Answer ALL questions in the same order.

I. Elaborate on :

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

- | | | | |
|--|----|---------|----|
| <p>1. Describe the types of cholinceptors (4).
Classify the cholinergic agonist (8).
Write briefly about its pharmacological actions (8).</p> | 17 | 40 min. | 20 |
| <p>2. Define Parkinsonism (2).
Classify the antiparkinsonian drugs (4).
Write the mechanism of action (6),
drug interactions(4) and uses of dopamine precursors (4).</p> | 17 | 40 min. | 20 |

II. Write notes on :

- | | | | |
|--|---|---------|---|
| <p>1. Write briefly about the phases involved in Bio-transformation.</p> | 4 | 10 min. | 6 |
| <p>2. Explain the stages of general anaesthesia.</p> | 4 | 10 min. | 6 |
| <p>3. Mention the therapeutic uses of digitalis in the case of congestive heart failure.</p> | 4 | 10 min. | 6 |
| <p>4. Explain the Dopamine theory of Schizophrenia.</p> | 4 | 10 min. | 6 |
| <p>5. Classify Central Nervous System stimulants(3) and
Write the mechanism of action of psychostimulants. (3)</p> | 4 | 10 min. | 6 |
| <p>6. Write the clinical uses of Nitrates in angina.</p> | 4 | 10 min. | 6 |
| <p>7. Write a note on HMG-CoA reductase inhibitors.</p> | 4 | 10 min. | 6 |
| <p>8. Describe the various routes of drug administration.</p> | 4 | 10 min. | 6 |
| <p>9. Write the synthesis, storage and metabolism of
5-Hydroxytryptamine</p> | 4 | 10 min. | 6 |
| <p>10. Write the pharmacological actions of COX-2 inhibitors</p> | 4 | 10 min. | 6 |

DOCTOR OF PHARMACY (PHARM. D) DEGREE EXAMINATION**(2009-2010 Regulation)****SECOND YEAR****PAPER IV – PHARMACOLOGY – I*****Q.P. Code: 383810*****Time: Three Hours****Maximum: 100 marks****Answer ALL questions in the same order.****I. Elaborate on :****Pages Time Marks
(Max.) (Max.) (Max.)**

1. Define biotransformation.

Discuss the synthetic and non synthetic reaction of drug metabolism with suitable example.

17 40 min. 20

2. Define and classify anticholinergic agents.

Explain the pharmacological actions, side effects, drug interactions and uses of Atropine.

17 40 min. 20

II. Write notes on :

1. List out the drugs used in the treatment of Congestive Heart Failure and write the mechanism of Cardiac glycosides.

4 10 min. 6

2. Define and classify local anaesthetics.

Write the mechanism of action and uses of lignocaine.

4 10 min. 6

3. Define the following and give example.

4 10 min. 6

(i) Expectorants.

(ii) Mucolytics.

4. Write notes on oral contraceptives.

4 10 min. 6

5. Classify anti histamines and add note on histamine receptors.

4 10 min. 6

6. Define sedative and hypnotics.

Write the mechanism of action of barbiturates.

4 10 min. 6

7. Define acute toxicity, sub acute toxicity and chronic toxicity.

4 10 min. 6

8. Write the mechanism of action and uses of Disulfiram.

4 10 min. 6

9. Define the term mydriatics and miotics. Give example.

4 10 min. 6

10. Write notes on insulin and its preparations.

4 10 min. 6

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Q.P. Code: 383810

Time: Three Hours

Maximum: 100 marks

Answer All questions

I. Elaborate on:

(2 x 20 = 40)

1. a) Classify adrenergic drugs.
Discuss about adrenergic receptors types and its locations.
- b) Explain the pharmacological actions and therapeutic uses of catecholamine.
2. a) Classify sedative and hypnotics and write the mechanism of barbiturates.
- b) Explain the pharmacological actions, adverse effects and therapeutic uses of barbiturates.

II. Write notes on:

(10 x 6 = 60)

1. Classify β -adrenergic blocking agents and pharmacological action of propranolol.
2. Briefly discuss about the stages of general anaesthesia.
3. Write notes on microsomal enzyme induction.
4. Classify non-steroidal anti-inflammatory drugs.
5. Write the mode of action of digitalis.
6. What is angine pectoris and discuss briefly its type.
7. Classify anti-anxiety drugs.
8. Define epilepsy and write the mode of action of phenytoin.
9. Classify anti-cholinestrase and write its mechanism of action.
10. Write the reason for the combination of carbidopa and levodopa.

[LD 810]

OCTOBER 2013

Sub. Code: 3810

DOCTOR OF PHARMACY (PHARM. D) DEGREE EXAMINATION

(2009-2010 Regulation)

SECOND YEAR

PAPER IV – PHARMACOLOGY – I

Q.P. Code: 383810

Time: Three Hours

Maximum: 70 marks

Answer All questions

I. Elaborate on:

(2 x 20 = 40)

1. a) Define arrhythmias.
b) Write the classification of antiarrhythmics.
c) Enumerate mechanism of action, adverse effects, pharmacological action and uses of any one class of antiarrhythmics.
2. Enumerate various factors modifying the drug effects.

II. Write notes on:

(10 x 3 = 30)

1. Insulin analogues and their Pharmacological action and uses.
2. Write a note on local anaesthetics and their uses.
3. Pre anaesthetic medication.
4. Write the adverse effects, pharmacological action and uses of antianginal drugs.
5. What are psychotropic drugs?
6. What are nasal decongestants? Give examples.
7. Write the pharmacological action of muscarinic cholinergic receptor blockers
8. Pharmacodynamics.
9. Write the mechanism adverse effects of diazepam?
10. What are anti inflammatory drugs?

[LE 810]

APRIL 2014

Sub. Code: 3810

DOCTOR OF PHARMACY (PHARM. D) DEGREE EXAMINATION

(2009-2010 Regulation)

SECOND YEAR

PAPER IV – PHARMACOLOGY – I

Q.P. Code: 383810

Time: Three Hours

Maximum: 70 marks

Answer All questions

I. Elaborate on:

(2 x 20 = 40)

1. a) Define congestive cardiac failure.
b) Classify drugs used in the treatment of congestive cardiac failure.
c) Write the mechanism of action of Digoxin.
d) Mention its adverse effects of digoxin.
2. What is epilepsy? Classify them. Write the classification of antiepileptics, Enumerate any one class with Mechanism of action, adverse effects and pharmacological action.

II. Write notes on:

(10 x 3 = 30)

1. Write a note on antihistamines and their uses.
2. What is anti myasthenia gravis?
What are anti myastheniac drugs and add note on its adverse effects.
3. Write the adverse effects, pharmacological action and uses of angiotensin converting enzyme inhibitors.
4. What are antithyroid drugs. Write the uses of the same.
5. What are mucolytics? give examples.
6. Write the pharmacological action of β adrenergic receptor blockers.
7. Drug interactions.
8. Why levodopa combined with carbidopa?
9. What are oral contraceptives?
10. Define sedatives and hypnotics

[LF 810]

OCTOBER 2014

Sub. Code: 3810

**PHARM. D DEGREE EXAMINATION
(2009-2010 Regulation)
SECOND YEAR
PAPER IV - PHARMACOLOGY – I**

Q.P. Code : 383810

Time : Three hours

Maximum : 70 marks

I. Elaborate on :

(4 x 10 = 40)

1. a) Classify anti-cholinergic agents.
b) Write the pharmacological actions of atropine.
c) Write the manifestations and treatment in belladonna poisoning.
2. Write on the various modes of transport of drugs across biological membranes with special emphasis on active transport in detail.
3. a) Classify anti-arrhythmic agents.
b) Describe – secondary depolarizations and reentry arrhythmias.
4. a) Classify NSAIDs.
b) Write the pharmacological actions and the therapeutic uses of aspirin.

II. Write notes on :

(6 x 5 = 30)

1. Define a) Clearance b) Plasma half-life c) First order kinetics.
2. Classify receptors and add a note on G Protein coupled receptors.
3. Brief on the mechanism of action of hormonal contraceptives.
4. Write a note on drug interactions.
5. Classify bronchodilators and add a note on allergens.
6. Write the therapeutic applications of lithium carbonate.

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PAPER IV – PHARMACOLOGY – I

Q.P. Code: 383810

Time: Three Hours

Maximum: 70 marks

Answer All questions

I. Elaborate on:

(4 x 10 = 40)

1. a) Classify drugs in Parkinson's disease.
b) Write the pharmacological actions of L-dopa on CNS.
c) Write the adverse effects of L-dopa at the initiation of therapy and after prolonged therapy.
2. Write with examples, biotransformation reactions involving microsomal and non-microsomal enzymes.
3. a) Classify antihistamines.
b) Write the pharmacological actions, adverse effects and therapeutic uses.
4. a) Brief on the steps involved in the synthesis of thyroid hormones.
b) Classify thyroid inhibitors and write its therapeutic uses.

II. Write notes on:

(6 x 5 = 30)

1. Write on different routes of drug administration.
2. Classify anti-hypertensive drugs.
3. Briefly discuss the therapeutic applications of local anesthetics.
4. Write the pharmacological actions and therapeutic uses of oxytocin.
5. What is vasomotor reversal of Dale?
6. Compare and contrast barbiturates and benzodiazepines.

[LH 810]

OCTOBER 2015

Sub. Code: 3810

PHARM. D DEGREE EXAMINATION

(2009-2010 Regulation)

SECOND YEAR

PAPER IV – PHARMACOLOGY - I

Q.P. Code : 383810

Time: Three Hours

Maximum: 70 marks

Answer ALL questions

I. Elaborate on :

(4 x 10 = 40)

1. (a) Define general anesthesia.
(b) Classify general anesthetics.
(c) Write the hypothesis of general anesthesia and the different stages of anesthesia.
2. Write in detail, the factors modifying drug effects.
3. (a) Classify adrenergic drugs.
(b) Write the pharmacological actions and therapeutic uses of adrenaline.
4. (a) Write the sources of cardiac glycosides.
(b) Write the mechanism of action of digitalis and its pharmacological actions on cardiovascular system.

II. Write notes on :

(6 x 5 = 30)

1. Define mydriasis and write the effect of atropine on eye.
2. Classify anti-depressants.
3. Define cough and write briefly on drugs used in cough.
4. Define diabetes mellitus and add a note on hypoglycemic agents.
5. Write on opioid analgesics.
6. Write on pre-clinical evaluations.

[LI 810]

APRIL 2016

Sub. Code: 3810

PHARM. D DEGREE EXAMINATION
(2009-2010 Regulation)
SECOND YEAR
PAPER IV - PHARMACOLOGY – I

Q.P. Code : 383810

Time : Three hours

Maximum : 70 Marks

I. Elaborate on :

(4 x 10 = 40)

1. a) Classify Anti-anginal drugs.
b) Write the Mechanism of action, Pharmacological actions and Therapeutic uses of Nitrates.
2. a) Classify Anti-depressants.
b) Write the Mechanism of action, Pharmacological actions and therapeutic uses of Tricyclic Anti-depressants.
3. Write the Biosynthesis, actions and Pathophysiological roles of Prostaglandins, Thromboxanes and Prostacyclin.
4. Classify Anticholinesterases, describe their mechanism of action and therapeutic uses.

II. Write notes on :

(6 x 5 = 30)

1. Write a note on Bronchodilators.
2. What are the factors influencing Drug Absorption.
3. Describe the manifestations and treatment of Atropine poisoning.
4. Classify and write the therapeutic uses of Antihistamines.
5. Explain the mechanism of action and therapeutic uses of Non-steroidal Anti-inflammatory agents.
6. Write on CNS stimulants and cognition enhancers.

[LJ 810]

OCTOBER 2016

Sub. Code: 3810

PHARM. D DEGREE EXAMINATION
(2009-2010 Regulation)
SECOND YEAR
PAPER IV - PHARMACOLOGY – I

Q.P. Code: 383810

Time : Three hours

Maximum : 70 Marks

I. Elaborate on:

(4 x 10 = 40)

1. Discuss drug interaction with suitable example.
2. Classify local anaesthetics. Discuss the Pharmacology and uses of Cocaine.
3. Classify anti-cholinergics agents. Discuss the pharmacology, adverse effects and uses of Atropine.
4. Define and classify antihyperlipidemics. Write the mechanism of action and side effects of HMG CoA Reductase Inhibitors and Fibrates.

II. Write notes on:

(6 x 5 = 30)

1. Define the term neuroleptics. Classify it. Discuss the mechanism of action of chlorpromazine.
2. Classify anti-asthmatic agents. Discuss the Mechanism of action and uses of Theophylline.
3. Mention the symptoms and treatment of Organophosphorus Compound Poisoning.
4. Write notes on 5 – Hydroxytryptamine and its antagonist.
5. Classify oral contraceptives. Write notes on Mini – Pill.
6. Discuss the mechanism of action of NSAIDS with examples.

[LK 810]

MAY 2017

Sub. Code: 3810

PHARM. D DEGREE EXAMINATION
(2009-2010 Regulation)
SECOND YEAR
PAPER IV - PHARMACOLOGY – I

Q.P. Code: 383810

Time : Three hours

Maximum : 70 Marks

I. Elaborate on:

(4 x 10 = 40)

1. a) Define and classify local Anaesthetics.
b) Describe the mechanism of action and uses of Lignocaine.
2. a) Define and classify two major types of Diabetes Mellitus.
b) Write on the conventional preparations of Insulin.
3. a) Define and classify Anti Adrenergic agents.
b) Explain the pharmacological actions, side effects and Therapeutic uses of Propanolol.
4. Write the mechanism of action, adverse effects and uses of Lithium Carbonate.

II. Write notes on:

(6 x 5 = 30)

1. Write on Kinetics of elimination.
2. Describe G-protein coupled receptors.
3. Describe the manifestations and treatment of Barbiturate poisoning.
4. Compare and contrast the mechanism of actions of Barbiturates and Benzodiazepines.
5. Write a note on Anti-arrhythmic agents.
6. Write a note on Thyroid Inhibitors.

[LL 810]

OCTOBER 2017

Sub. Code: 3810

PHARM. D DEGREE EXAMINATION
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SECOND YEAR
PAPER IV - PHARMACOLOGY – I

Q.P. Code : 383810

Time : Three hours

Maximum : 70 Marks

I. Elaborate on:

(4 x 10 = 40)

1. Classify Anti-anginal drugs. Write the pharmacological actions of nitrates.
2. Classify Anti-hypertensives drugs. Discuss the mechanism of action, adverse drug reactions and uses of ACE inhibitors and beta blockers.
3. Classify Anti-convulsant drugs. Discuss the MOA, adverse drug reactions and uses.
4. Classify oral hypoglycemic agents. Discuss the mechanism, pharmacological actions and side effects of sulfonylureas.

II. Write notes on:

(6 x 5 = 30)

1. Define local anaesthetics with examples. Write the mechanism of lignocaine.
2. Mention the uses and mechanism of action of Barbiturates.
3. What is Myasthenia Gravis? Mention the drugs used for the treatment of Myasthenia Gravis.
4. Write notes on nasal decongestants.
5. Define the term Oxytocics. Write the pharmacological actions and uses of Oxytocin.
6. Classify Anti-histamine. Write notes on histamine receptors.

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

[LM 810]

MAY 2018

Sub. Code: 3810

**PHARM. D DEGREE EXAMINATION
(2009-2010 Regulation)
SECOND YEAR
PAPER IV - PHARMACOLOGY – I**

Q.P. Code: 383810

Time : Three hours

Maximum : 70 Marks

I. Elaborate on:

(4 x 10 = 40)

1. Explain the synthesis, release, mechanism of action, pharmacological actions of various preparations of Insulin.
2. Classify Anti-hypertensive agents according to their sites of action. Explain the mechanism of action, pharmacological actions, adverse effects and therapeutic uses of calcium channel blockers.
3. Classify Anti-cholinergic agents. Explain the mechanism of action, pharmacological actions, adverse effects and therapeutic uses of any one drug.
4. Classify drugs used in treatment Parkinsonism. Explain the actions of levodopa and its combination with carbidopa.

II. Write notes on:

(6 x 5 = 30)

1. Pre-clinical evaluations of new drugs.
2. Explain the mechanism of action and pharmacological actions of drugs acting on GABA receptors.
3. Classify Anti-dyslipidaemic agents. Explain about bile acid sequestrants.
4. Discuss about histaminergic receptor antagonists.
5. Explain about the pharmacology of oxytocin.
6. What are Anti-tussives? Classify and explain their pharmacology.

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

[LN 810]

OCTOBER 2018

Sub. Code: 3810

PHARM. D DEGREE EXAMINATION
(2009-2010 Regulation)
SECOND YEAR
PAPER IV - PHARMACOLOGY – I

Q.P. Code: 383810

Time : Three hours

Maximum : 70 Marks

I. Elaborate on:

(4 x 10 = 40)

1. Classify peripherally acting skeletal muscle relaxants. Compare and contrast the pharmacology of both the classes of drugs.
2. Classify drugs used in the treatment of seizures. Explain the mechanism of action, pharmacological actions, adverse effects and therapeutic uses of Phenytoin.
3. Explain the synthesis, storage, release, post synaptic receptors and their agonist and antagonists of histamine.
4. Classify drugs used in Congestive Cardiac failure. Explain the mechanism of action, pharmacological actions and adverse effects of digoxin. Add a note on digitization.

II. Write notes on:

(6 x 5 = 30)

1. Explain the various routes of drug administration.
2. Enumerate factors modifying drug effects.
3. Discuss the pharmacology of drugs used in the treatment of hyperthyroidism.
4. Discuss about the mechanism of action and types of local anaesthetics.
5. Explain about the pharmacology of beta adrenergic receptor blockers.
6. What are antitussives? Classify and explain their pharmacology.

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

[LO 810]

MAY 2019

Sub. Code: 3810

PHARM. D DEGREE EXAMINATION
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SECOND YEAR
PAPER IV - PHARMACOLOGY – I

Q.P. Code: 383810

Time : Three hours

Maximum : 70 Marks

I. Elaborate on:

(4 x 10 = 40)

1. Define and classify Anti Adrenergic agents. Explain the pharmacological actions, side effects and Therapeutic uses of Propanolol.
2. Write about the metabolism of drugs.
3. Define Epilepsy. Write the classification of antiepileptics. Enumerate Phenytoin with mechanism of action, adverse effects and pharmacological action.
4. Write in detail about the pathophysiological role and pharmacological actions of 5HT.

II. Write notes on:

(6 x 5 = 30)

1. What are the factors influencing Drug Absorption?
2. Brief on the mechanism of action of hormonal contraceptives.
3. Write the adverse effects, pharmacological action and uses of Angiotensin converting enzyme inhibitors.
4. Describe – secondary depolarization and reentry arrhythmias.
5. Write the pharmacological action of muscarinic cholinergic receptor blockers.
6. Classify sedative and hypnotics and write the mechanism of barbiturates.

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

[LP 810]

OCTOBER 2019

Sub. Code: 3810

PHARM. D DEGREE EXAMINATION
(2009-2010 Regulation)
SECOND YEAR
PAPER IV - PHARMACOLOGY – I

Q.P. Code: 383810

Time : Three hours

Maximum : 70 Marks

I. Elaborate on:

(4 x 10 = 40)

1. Classify cholinergic agonists. Explain, in detail, the pharmacology of cholinesters.
2. Define Asthma. Classify anti-asthmatic drugs and explain about Mast cell stabilizer.
3. What is angina? Classify antianginal agents. Explain, in detail, the pharmacology of nitrates.
4. Classify the drugs used in the treatment of various types of epilepsy according to their mechanism of action. Explain the pharmacological actions and adverse effects of phenytoin.

II. Write notes on:

(6 x 5 = 30)

1. Explain the various stages of general anaesthesia with a neat illustration.
2. What are the various types of insulin? List out the various marketed preparations of insulin.
3. Describe the structure, release, mechanism of action, physiological role and therapeutic uses of oxytocin.
4. Describe the mechanism of action and physiological role of oestrogens.
5. Classify histamine 2 receptor antagonists. List their therapeutic uses and adverse effects.
6. Define local anaesthesia and give examples. Explain the mechanism of action of local anaesthetics.
