

[LK 544]

FEBRUARY 2017

Sub.Code :5061

**M.B.B.S. DEGREE EXAMINATION
SECOND YEAR
PAPER I – PHARMACOLOGY – I**

Q.P. Code: 525061

Time: Three hours

Maximum : 40 Marks

Answer All Questions

I. Elaborate on:

(1 x 10 = 10)

1. Classify antianginal drugs. Discuss the mechanism of action, uses and adverse effects of nitrates.

II. Write notes on:

(4 x 5 = 20)

1. Mechanism of action, uses and adverse effects of sodium valproate.
2. Management of organophosphorus poisoning.
3. Mechanism of action, uses and adverse effects of ketorolac.
4. Enumerate and discuss the role of inhaled steroids in bronchial asthma.

III. Short answers on:

(5 x 2 = 10)

1. Write four therapeutic uses of prostaglandins.
2. Give two reasons for using morphine in left ventricular failure.
3. Define plasma half life. Give two examples of drugs with short half life.
4. Write two indications and two adverse effects of thiazides.
5. What is phase IV clinical trial?

[LL 544]

AUGUST 2017

Sub.Code :5061

**M.B.B.S. DEGREE EXAMINATION
SECOND YEAR
PAPER I – PHARMACOLOGY – I**

Q.P. Code: 525061

Time: Three hours

Maximum : 40 Marks

Answer All Questions

I. Elaborate on:

(1 x 10 = 10)

1. Classify drugs used in the treatment of parkinsonism. Explain the mechanism of action and adverse effects of levodopa. What is the rationale for use of carbidopa with levodopa? Write briefly on selegiline.

II. Write notes on:

(4 x 5 = 20)

1. Pharmacogenetics.
2. Thiazide diuretics.
3. Adrenaline.
4. Inhalational corticosteroids.

III. Short answers on:

(5 x 2 = 10)

1. Mention four antitussive drugs.
2. Name four anti-platelet drugs.
3. Mention four drugs used in migraine prophylaxis.
4. Serotonin syndrome.
5. Tachyphylaxis.

[LM 544]

FEBRUARY 2018

Sub Code: 5061

**M.B.B.S. DEGREE EXAMINATION
SECOND YEAR
PAPER I – PHARMACOLOGY – I**

Q.P. Code: 525061

Time: Three hours

Maximum : 40 Marks

Answer All Questions

I. Elaborate on:

(1 x 10 = 10)

1. Classify anti-epileptic drugs. Discuss the mechanism of action, adverse effects and therapeutic uses of phenytoin. Briefly discuss the drug therapy of status epilepticus.

II. Write notes on:

(6 x 4 = 24)

1. Pre-anaesthetic medication.
2. Therapeutic uses of adrenergic drugs.
3. Mechanism of action and therapeutic uses of amlodipine.
4. Glycoprotein IIb/IIIa receptor antagonist.
5. Mechanism of action and therapeutic uses of spironolactone.
6. Pharmacovigilance.

III. Short answers on:

(6 x 1 = 6)

1. Name two merits and two demerits of rectal route of administration of drugs.
2. Rationale for using timolol in the treatment of glaucoma.
3. What is dissociative anaesthesia?
4. Name two selective COX-2 inhibitors. List two advantages in using selective COX-2 inhibitors.
5. List the two uses of sodium cromoglycate.
6. Name two different categories of drugs used in the treatment of congestive heart failure. Give one example in each category.

[LN 544]

AUGUST 2018

Sub.Code :5061

**M.B.B.S. DEGREE EXAMINATION
SECOND YEAR
PAPER I – PHARMACOLOGY – I**

Q.P. Code: 525061

Time: Three hours

Maximum : 40 Marks

Answer All Questions

I. Elaborate on:

(1 x 10 = 10)

1. Classify anti-arrhythmic drugs. Write in detail about mechanism of action, pharmacokinetics, clinical uses and adverse effects of amiodarone.

II. Write notes on:

(6 x 4 = 24)

1. Plasma half life.
2. Alpha blockers.
3. Mast cell stabilizers.
4. Spironolactone.
5. Tramadol.
6. Inhalational steroids in bronchial asthma.

III. Short answers on:

(6 x 1 = 6)

1. Orphan drugs.
2. Name any two drugs used for glaucoma.
3. Mention the mechanism of action and two uses of allopurinol.
4. Mention any four uses of loop diuretics.
5. Write any four antitussives.
6. Write any one use and one adverse effect of abciximab.

[LO 544]

FEBRUARY 2019

Sub.Code :5061

**M.B.B.S. DEGREE EXAMINATION
SECOND YEAR
PAPER I – PHARMACOLOGY – I**

Q.P. Code: 525061

Time: Three hours

Maximum : 40 Marks

Answer All Questions

I. Elaborate on: **(4 + 6 = 10)**

1. Classify anti-depressants. Write in detail about mechanism of action, clinical uses and adverse effects of selective serotonin reuptake inhibitors.

II. Write notes on: **(6 x 4 = 24)**

1. Teratogenicity.
2. Treatment of organophosphorous compound poisoning.
3. Drug therapy for moderate migraine.
4. Potassium channel openers.
5. Dopaminergic agonist in parkinsonism.
6. Ketamine.

III. Short answers on: **(6 x 1 = 6)**

1. Phase-III clinical trial.
2. State any one use and one adverse effect of labetalol.
3. Write any two uses and two adverse effects of aspirin.
4. Mention any four mucolytics.
5. Name any two drugs used for conscious sedation.
6. Write any one use and one adverse effect of ranolazine.

[LP 544]

AUGUST 2019

Sub Code: 5061

**M.B.B.S. DEGREE EXAMINATION
SECOND YEAR
PAPER I – PHARMACOLOGY – I**

Q.P. Code: 525061

Time: Three hours

Maximum : 40 Marks

Answer All Questions

I. Elaborate on:

(2 + 5 + 3 = 10)

1. Classify anti-hypertensive drugs. Discuss the adverse effects and therapeutic uses of beta blockers. Discuss the drug therapy of hypertensive emergency.

II. Write notes on:

(6 x 4 = 24)

1. Parenteral route of drug administration.
2. Pharmacotherapy of status asthmaticus.
3. Parenteral iron therapy.
4. Discuss the advantages and therapeutic uses of low molecular weight heparin.
5. Therapeutic uses and side effects of furosemide.
6. Mention the mechanism of action, uses and adverse effects of NSAIDs.

III. Short answers on:

(6 x 1 = 6)

1. Rationale of combining L-Dopa and Carbidopa in the treatment of Parkinsonism.
2. Name two different groups of drugs used in the treatment of open angle glaucoma.
3. What is zero order pharmacokinetics?
4. Name two second generation anti-histamines and their therapeutic uses.
5. Name two therapeutic uses of cardiac glycosides.
6. List two advantages in using nitrous oxide for general anaesthesia.

[LQ 544]

FEBRUARY 2020

Sub.Code :5061

**M.B.B.S. DEGREE EXAMINATION
SECOND YEAR
PAPER I – PHARMACOLOGY – I**

Q.P. Code: 525061

Time: Three hours

Maximum : 40 Marks

Answer All Questions

I. Elaborate on:

(2 + 6 + 2 = 10)

1. Classify anti-hypertensive drugs. Discuss in detail about the management of hypertensive emergency and urgency. Which anti-hypertensives are to be avoided in pregnancy and Why?

II. Write notes on:

(6 x 4 = 24)

1. Discuss in detail about the phase II bio-transformation reactions with suitable examples.
2. Enumerate 2nd generation H₁ antagonists and their uses. Discuss the difference between 1st and 2nd generation antihistamines.
3. Discuss the mechanism of action, uses and techniques of local anaesthetics.
4. Compare and contrast conventional and atypical antipsychotics.
5. Discuss the role of vasodilators in acute heart failure.
6. Discuss the mechanism of action, uses and adverse effects of spironolactone.

III. Short answers on:

(6 x 1 = 6)

1. Define bioavailability. Why is it less when the drug is given orally?
2. Why is pralidoxime not used as antidote for carbamate anti-cholinesterases poisoning?
3. Mention adverse effects of theophylline.
4. List four differences between buspirone and benzodiazepines.
5. Mention four common drug interactions in an alcoholic individual.
6. Adenosine.

[LR 544]

**NOVEMBER 2020
(AUGUST 2020 SESSION)**

Sub.Code :5061

**M.B.B.S. DEGREE EXAMINATION
SECOND YEAR
PAPER I – PHARMACOLOGY – I**

Q.P. Code: 525061

Time: Three hours

Maximum : 40 Marks

Answer All Questions

I. Elaborate on:

(2 + 5 + 3 = 10)

1. A 45 year old male patient is brought to the emergency with c/o seizure episode associated with loss of consciousness. He is a known epileptic for past 2 years with history of recurrent tonic clonic seizures.
 - a. Enumerate the drugs used in treatment of Epilepsy.
 - b. Discuss in detail the pharmacology of Valproic acid.
 - c. Write briefly on the management of Status Epilepticus.

II. Write notes on:

(6 x 4 = 24)

1. Intracellular receptors.
2. Pressor agents.
3. Mechanism of action, adverse effects and uses of Digoxin.
4. Role of Biologics in Rheumatoid Arthritis.
5. Inhalational Steroids.
6. Depolarising Neuromuscular blockers.

III. Short answers on:

(6 x 1 = 6)

1. Give 2 examples of physical Antagonism.
2. Write the mechanism of action and 2 major uses of Frusemide.
3. Enlist the advantages of Low Molecular Weight Heparin over conventional Heparin.
4. Enumerate Opioid Antagonists and their clinical uses.
5. Mention any 4 Potassium channel openers and 4 uses of these drugs.
6. Neprilysin Inhibitors.

[MBBS 0921]

**SEPTEMBER 2021
(FEBRUARY 2021 SESSION)**

Sub.Code :5061

**M.B.B.S. DEGREE EXAMINATION
SECOND YEAR
PAPER I – PHARMACOLOGY – I**

Q.P. Code: 525061

Time: Three hours

Maximum : 40 Marks

Answer All Questions

I. Elaborate on:

(1 x 10 = 10)

1. A patient is brought to the emergency medicine dept with symptoms suggestive of Organo Phosphorous Compound (OPC) poisoning.
 - a. What is the antidote for the above poisoning?
 - b. Write in detail on receptor antagonism with suitable diagram.
 - c. Write briefly on cholinergic crisis in Myasthenia Gravis.

II. Write notes on:

(6 x 4 = 24)

1. Write Mechanism of action, therapeutic uses of newer antiepileptic drugs.
2. Uses, adverse effects of Angiotensin Converting Enzyme (ACE) Inhibitors.
3. Discuss the clinical significance of plasma protein binding with examples?
4. Therapeutic uses of beta blockers and contraindications.
5. Therapeutic uses of fibrinolytic drugs.
6. Antitussives.

III. Short answers on:

(6 x 1 = 6)

1. Define pharmacogenetics, discuss with three examples.
2. Rationale of Levodopa Carbidopa fixed drug combination.
3. Enumerate direct oral anticoagulants.
4. Define pharmacovigilance.
5. Give three examples each for drugs with long and very short half life.
6. Drugs used in treatment of alzheimers disease.

[MBBS 0222]

FEBRUARY 2022

Sub.Code :5061

M.B.B.S. DEGREE EXAMINATION

(For the candidates admitted from the Academic Year 2018-2019)

SECOND YEAR

PAPER I – PHARMACOLOGY – I

Q.P. Code: 525061

Time: Three hours

Maximum : 40 Marks

Answer All Questions

I. Elaborate on:

(1 x 10 = 10)

1. A 49 years old male is brought to the emergency dept with symptoms suggestive of classic angina.
 - a. What are the various classes of drugs useful to treat the above patient?
 - b. Discuss in detail with suitable diagram on the mechanism of vascular smooth muscle relaxant effect of nitrates and its therapeutic uses.
 - c. Add a note on Nicorandil.

II. Write notes on:

(6 x 4 = 24)

1. Enumerate atypical antidepressants. Discuss their mechanism of action and clinical uses.
2. Write in detail on transdermal therapeutic system with examples, advantages and disadvantages.
3. Write in detail on erythrocyte maturation factors and their role on treatment of anemia.
4. Probenecid.
5. Ketamine.
6. Nicotinic acid.

III. Short answers on:

(6 x 1 = 6)

1. Eprosartan and the mechanisms by which it lowers the blood pressure.
2. Cilostazol.
3. Side effects of potassium channel blockers used in the treatment of cardiac arrhythmias.
4. EMLA.
5. Phase III clinical trial.
6. Define tachyphylaxis. Give examples.

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

[MBBS 0822]

AUGUST 2022

Sub. Code :5061

M.B.B.S. DEGREE EXAMINATION

(For the candidates admitted upto the Academic Year 2018-2019)

SECOND YEAR

PAPER I – PHARMACOLOGY – I

Q.P. Code: 525061

Time: Three hours

Maximum : 40 Marks

Answer All Questions

I. Elaborate on:

(1 x 10 = 10)

1. A 52 years old man comes to hospital with complaints of chest pain, radiating to the left upper limb, pain not relieved by rest. Clinical examination and investigations were done. Myocardial injury markers not elevated, ECG was not suggestive of acute myocardial infarction. He was diagnosed to have unstable angina.

Classify antianginal drugs.

Describe the mechanism of action and adverse effects of Glyceryl trinitrate.

Enumerate the drug therapy in myocardial infarction.

II. Write notes on:

(6 x 4 = 24)

1. Define Pharmacovigilance. Describe the basis and grading of causality assessment.
2. List the differences between peripherally acting and centrally acting skeletal muscle relaxants.
3. Discuss the guidelines in the choice of nonsteroidal anti-inflammatory drug.
4. Describe the pharmacological role of Dopaminergic agonists in parkinsonism.
5. Enumerate the uses of Beta blockers.
6. Discuss the clinical applications of Acetazolamide and mention its adverse effects.

III. Short answers on:

(6 x 1 = 6)

1. Mention 4 complications of spinal anesthesia.
2. Mention 2 newer parenteral iron formulations.
3. List 4 factors influencing prescriptions.
4. Mention the role of triptans in migraine.
5. Name the factor Xa inhibitors and 2 uses of these drugs.
6. Mention 2 drugs used in smoking cessation.

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

[MBBS 0223]

FEBRUARY 2023

Sub. Code :5061

M.B.B.S. DEGREE EXAMINATION

(For the candidates admitted upto the Academic Year 2018-2019)

SECOND YEAR

PAPER I – PHARMACOLOGY – I

Q.P. Code: 525061

Time: Three hours

Maximum : 40 Marks

Answer All Questions

I. Elaborate on: **(1 x 10 = 10)**

1. Classify Beta blockers. Discuss the pharmacological effects, uses and adverse effects of Beta blockers.

II. Write notes on: **(6 x 4 = 24)**

1. Discuss about the Targeted drug delivery systems.
2. Write in detail about uricosuric drugs.
3. Write short notes on pre anaesthetic medications.
4. Explain pharmacological basis of aspirin as an anti platelet drug.
5. Discuss about inhaled asthma medications.
6. Brief about newer anti epileptic drugs.

III. Short answers on: **(6 x 1 = 6)**

1. What is Tachyphylaxis?
2. What are anti tussives? Give two examples.
3. Write about direct rennin inhibitor.
4. Write four uses of vasopressin analogues.
5. What is Neuroleptic analgesia?
6. Write four uses of atropine.

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

[MBBS 0723]

JULY 2023

Sub. Code :5061

M.B.B.S. DEGREE EXAMINATION

(For the candidates admitted upto the Academic Year 2018-2019)

SECOND YEAR

PAPER I – PHARMACOLOGY – I

Q.P. Code: 525061

Time: Three hours

Maximum : 40 Marks

Answer All Questions

I. Elaborate on: **(1 x 10 = 10)**

1. Enumerate drugs acting on opioid receptors. Explain in detail about the mechanism of action, uses and adverse effect of morphine.

II. Write notes on: **(6 x 4 = 24)**

1. Discuss the methods of prolongation of drug action.
2. Write short notes on centrally acting muscle relaxants.
3. Write in detail about the pharmacological actions and uses of atropine and its substitutes.
4. List out the drugs that inhibit renin-angiotensin system. Write their indications and contraindications.
5. Explain the pharmacological basis of benzodiazepines as anti epileptic drug.
6. Discuss the treatment of alcohol dependence.

III. Short answers on: **(6 x 1 = 6)**

1. What is plasma half life?
2. Write about nasal decongestants.
3. Write the dose dependant actions of aspirin.
4. Write four uses of Fibrinolytics.
5. Cheese reaction.
6. Write the mechanism of action of Amiodarone.

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

[MBBS 0224]

FEBRUARY 2024

Sub. Code :5061

M.B.B.S. DEGREE EXAMINATION

(For the candidates admitted upto the Academic Year 2018-2019)

SECOND YEAR

PAPER I – PHARMACOLOGY – I

Q.P. Code: 525061

Time: Three hours

Maximum : 40 Marks

Answer All Questions

I. Elaborate on: **(1 x 10 = 10)**

1. A 70 years old man comes to hospital with complaints of rigidity and tremors. On examination he had a mask like face, sialorrhoea was present and his gait was defective. He was diagnosed to have Parkinson's disease.
 - a) Classify Antiparkinsonian drugs.
 - b) Describe the pharmacological role and adverse effects of Levodopa.
 - c) List the benefits of combining carbidopa with levodopa.

II. Write notes on: **(6 x 4 = 24)**

1. Discuss the Newer drug delivery systems.
2. Describe the mechanism of toxicity of Paracetamol and treatment of Paracetamol poisoning.
3. Enumerate the uses of Anticholinergic drugs.
4. Describe the pharmacological role of ACE inhibitors in cardiac failure.
5. Enumerate the difference between competitive and depolarising blockers.
6. Describe the Pharmacological properties of Clopidogrel.

III. Short answers on: **(6 x 1 = 6)**

1. Define first order kinetics.
2. Mention two uses of Mannitol.
3. Mention four prokinetic drugs.
4. Mention two drugs used in Alcohol withdrawal.
5. Mention the effect of Amiodarone in thyroid function.
6. Advantages of combining Adrenaline with a local anesthetic.

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

[MBBS 0824]

AUGUST 2024

Sub. Code :5061

M.B.B.S. DEGREE EXAMINATION

(For the candidates admitted upto the Academic Year 2018-2019)

SECOND YEAR

PAPER I – PHARMACOLOGY – I

Q.P. Code: 525061

Time: Three hours

Maximum : 40 Marks

Answer All Questions

I. Elaborate on:

(1 x 10 = 10)

(4+3+3)

1. Classify anti hypertensive drugs. Discuss in detail about the management of hypertensive emergency and urgency. Which antihypertensives are to be avoided in pregnancy? Why?

II. Write notes on:

(6 x 4 = 24)

1. Discuss in detail about adverse drug effects.
2. Preanesthetic medication.
3. Treatment of status asthmaticus.
4. Mention the mechanism of action, uses and adverse effects of Dantrolene.
5. Adverse effects and uses of Phenytoin .
6. Discuss the mechanism of action, uses and adverse effects of Amiodarone.

II. Short answers on:

(6 x 1 = 6)

1. First order kinetics.
2. Mention four adrenergic drugs.
3. How acute paracetamol poisoning produces toxicity.
4. How to treat febrile convulsions?
5. Name four SSRI drugs.
6. Define Prodrug. Give two examples.

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

[MBBS 0325]

MARCH 2025

Sub. Code :5061

M.B.B.S. DEGREE EXAMINATIONS

(For the arrear candidates admitted upto the Academic Year 2018-2019)

SECOND YEAR

PAPER I – PHARMACOLOGY – I

Q.P. Code: 525061

Time: Three hours

Maximum : 40 Marks

Answer All Questions

I. Elaborate on: **(1 x 10 = 10)**

[1+2+5+2]

1. A 50 years old business man presents with insomnia for the past three months
 - a) Name two groups of drugs used as hypnotics.
 - b) With suitable diagram, discuss the mechanism of action of benzodiazepines.
 - c) Detail on the therapeutic uses of benzodiazepines.
 - d) Discuss the advantages of benzodiazepines over barbiturates.

II. Write notes on: **(6 x 4 = 24)**

1. Write in detail on the mechanism of action, uses, adverse effects of Direct Thrombin Inhibitors.
2. Discuss the pharmacokinetic properties, uses and adverse effects of Statins.
3. Thiazide diuretics – mechanism of action, uses and adverse effects.
4. Define Teratogenicity. Detail on categories of Teratogenic drugs with examples.
5. Write in detail on the pharmacological effects and uses of complex action opioids.
6. Dopaminergic agonists in treatment of Parkinsonism.

III. Short answers on: **(6 x 1 = 6)**

1. Enumerate the causes and the drugs useful in the treatment of Malignant hyperthermia.
2. Ivabradine mechanism of action and therapeutic use.
3. Write the advantages of Atropine substitutes in ocular therapeutics.
4. Adverse effects of calcium channel blockers.
5. Tranexamic acid.
6. Drugs which act through JAK STAT pathway.

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

[MBBS 0725]

JULY 2025

Sub. Code: 5061

M.B.B.S. DEGREE EXAMINATION

(For the arrear candidates admitted upto the Academic Year 2018-2019)

SECOND YEAR

PAPER I – PHARMACOLOGY – I

Q.P. Code: 525061

Time: Three hours

Maximum : 40 Marks

Answer All Questions

I. Elaborate on: **(1 x 10 = 10)**

1. a) Classify Adrenergic Drugs. (2)
- b) Discuss in detail the Pharmacological actions of Adrenaline. (5)
- c) Write briefly on the Therapeutic uses of Adrenergic Drugs. (3)

II. Write notes on: **(6 x 4 = 24)**

1. G Protein Coupled Receptors.
2. Drugs used in Absence Seizures.
3. Compare and Contrast Heparin and Warfarin.
4. Role of Nitrates in Cardiac Disorders.
5. Mast Cell Stabilizers.
6. Sumatriptan.

III. Short answers on: **(6 x 1 = 6)**

1. Mention the Coxibs. Write One Advantage and One Disadvantage over Traditional NSAIDs.
2. Write the Mechanism of action of Morphine. Mention any two of its Indications.
3. Enumerate the Uricosuric Drugs. Give Rationale for their use.
4. MAO – Inhibitors in Parkinsonism.
5. What is Teratogenicity? Mention four drugs Causing Teratogenicity.
6. Enumerate the Parenteral Iron Preparations. What are its adverse effects?

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

[MBBS 0326]

MARCH 2026

Sub. Code :5061

M.B.B.S. DEGREE EXAMINATION

(For the arrear candidates admitted upto the Academic Year 2018 - 2019)

SECOND YEAR

PAPER I – PHARMACOLOGY – I

Q.P. Code: 525061

Time: Three hours

Maximum : 40 Marks

Answer All Questions

I. Elaborate on:

(1 x 10 = 10)

1. A 55-year-old male patient is brought to the OPD with c/o tightness of chest and discomfort which occurs after exercise and relieved by rest. ECG was done which showed a diagnosis of Angina Pectoris.
 - a) Enumerate the drugs used in Treatment of Angina. (2)
 - b) Discuss in detail the Pharmacological actions, adverse effects and uses of Calcium channel blockers. (6)
 - c) Write a brief note on Ivabradine. (2)

II. Write notes on:

(6 x 4 = 24)

1. Explain how Genetic defects can lead to variation in Drug Responses with examples?
2. Therapeutic uses of Atropine substitutes.
3. Antitussives.
4. Intravenous Anaesthetics.
5. Synthetic Opioids.
6. Depolarizing Neuromuscular Blockers.

III. Short answers on:

(6 x 1 = 6)

1. What is Ebastine? Mention its therapeutic uses.
2. Enumerate four NSAIDs. Write the Mechanism of action of traditional NSAIDs.
3. Mechanism of action and uses of Aripiprazole.
4. Mention Thrombolytic drugs. Write any two uses.
5. Enumerate the Drugs used in Angle Closure Glaucoma.
6. Mention two therapeutic uses and two adverse effects of Spironolactone.
