

Code. No.M7082413

St. Pauls College of Pharmacy

Approved by PCI and Affiliated to Osmania University, Hyderabad.
Accredited by NBA-UG Program, NAAC A+ Grade,
Recognition of College under Section 2(f) of the UGC Act 1956,
UGC Autonomous Institution



M.Pharmacy (Pharmacology) I Semester (PCI) (Supple) Examination July/August 2024

Subject: PHARMACOLOGICAL AND TOXICOLOGICAL SCREENING METHODS - I (MPL 103T)

Time: 3 Hours

Max.Marks: 75

Note: Answer any FIVE questions. All questions carry equal marks.

Q.No.	Question	Marks	CO	BL
1	a) Summarize CCSEA guidelines to conduct experiments on animals?	8	1	1
	b) Give the brief account on euthanasia techniques of experimental animals?	7	1	4
2	a) Illustrate alternatives to animal screening methods?	8	1	4
	b) Summarize screening methods to evaluate the anxiolytics?	7	2	1,5
3	a) Enlist various methods employed in the screening of antipsychotics?	8	3	1,4
	b) Elaborate screening methods to evaluate the test drug for Alzheimer's disease?	7	3	4,5
4	a) Describe the screening methods used to evaluate a compound for COPD?	8	3	2,5
	b) Discuss the various methods employed in the screening of antiulcer agents?	7	3	2,3
5	a) Summarize screening methods to evaluate the aphrodisiacs?	7	3	1,5
	b) Summarize in-vitro and in-vivo techniques for screening of Anticancer agents?	8	4	1,5
6	a) Discuss the various methods employed in the screening of antiarrhythmic agents?	8	4	2,5
	b) Enumerate the screening methods for antidiabetic drugs?	7	4	2,3
7	a) Define immunoassay. Outline principles of immunoassay and illustrate different types of immunoassays?	8	5	1
	b) Elaborate immunoassay of digoxin?	7	5	5
8	a) Give a brief account on evaluation of analgesics?	8	3	4,5
	b) Summarize Limitations of animal experimentation?	7	5	1

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M.Pharmacy (PHARMACOLOGY) I Semester (PCI) (Supple) Examination Jul/August 2024

Subject: ADVANCED PHARMACOLOGY -1

Time: 3 Hours

Max.Marks: 75

Note: Answer any FIVE questions. All questions carry equal marks.

Q.No.	Question	Marks	CO	BL
1	a) Discuss G-protein coupled receptors	10	1	2
	b) Explain significance of protein binding	05	1	2
2	a) Explain Neurohumoral transmission in sympathetic nervous system	09	1	2
	b) Outline synthesis and metabolism GABA	06	1	1
3	a) Discuss Pharmacological actions, therapeutic uses and adverse effects of adrenaline	12	4	2
	b) Explain mechanism of action and uses of Succinyl choline	03	3	2
4	a) Classify sedative hypnotics with suitable examples. Explain the mechanism of action and uses of Benzodiazepines	12	6	2
	b) Illustrate the pathophysiology of heart failure	03	2	3
5	a) Classify antihypertensives with suitable examples Explain the pharmacology of β blockers	12	6	2
	b) List the adverse effects NSAIDS	03	3	4
6	a) Discuss Physiological and Pathological role of serotonin	12	2	2
	b) Summarise the functions of opioid autocooids	03	3	2
7	a) Define anti-coagulant and Fibrinolytic. Summarise their uses	06	1	1
	b) Justify in detail the various steps involved in the process of neurotransmission.	09	6	5
8	a) List the drugs used in epilepsy. Discuss the pharmacology of phenytoin	12	6	1
	b) Define haematinic. Summarise the uses of haematinics	03	4	1

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M.Pharmacy (Pharmacology) I Semester (PCI) (Supple) Examination Jul/August 2024

Subject & Code: Cellular and Molecular Pharmacology MPL104T

Time: 3 Hours

Max. Marks: 75

Note: Answer any FIVE questions. All questions carry equal marks.

Q.No.	Question	Marks	CO	BL
1	a) Write about structure and functions of cell and its organelles.	10	2	1
	b) Discuss about necrosis.	5	2	2
2	a) Evaluate in detail about gene mapping.	10	5	5
	b) Examine genome organization in a cell.	5	5	4
3	a) Illustrate the signal transduction mechanisms of ligand gated ion channels with examples.	10	1	3
	b) Illustrate the role of calcium ion as a secondary messenger with examples.	5	1	3
4	Connect the principle with applications of reverse transcription PCR	15	4	4
5	a) Write about JAK-STAT pathway with an example.	8	2	2
	b) Write the principles and applications of western blotting.	7	4	2
6	a) Evaluate genetic variation in drug metabolism with examples.	8	5	5
	b) Write about applications of immunotherapeutics..	7	5	2
7	a) Investigate about cell viability assays.	10	3	5
	b) Connect cryopreservation with cell viability, media and DMSO	5	6	4
8	a) Elaborate procedure for isolation of cells.	8	6	4
	b) Differentiate cell culture medium used in cell culture.	7	6	4

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M.Pharmacy (Pharmacology) I Semester (PCI) (Main) Examination Feb/March 2024

Subject: Cellular and Molecular Pharmacology MPL104T

Max.Marks: 75

Time: 3 Hours

PART- A

Note: Answer any FIVE questions. All questions carry equal marks.

Q.No.	Question	Marks	CO	BL
1	a) Examine cell cycle check points and cell cycle regulation.	10	5	4
	b) Discuss about autophagy.	5	5	2
2	a) Write in detail about gene expression.	10	2	1
	b) Write in brief intrinsic and extrinsic pathways of apoptosis.	5	2	1
3	a) Write the signal transduction mechanisms of G-Protein coupled receptors.	10	1	2
	b) Explain MAPK signaling pathway.	5	1	2
4	Describe basic principles of recombinant DNA technology with its applications.	15	4	3
5	a) Connect Gene Therapy with its applications.	8	4	4
	b) Examine the principles and applications of ELISA.	7	4	4
6	a) Investigate genetic variation in drug transporters.	9	5	5
	b) Comprehend the applications of Genomics & Proteomics	6	5	2
7	a) Differentiate various types of cell cultures and general procedures for cell culturing.	10	6	4
	b) Describe glucose uptake assay	5	6	2
8	a) Elaborate principles and applications of flow cytometry.	10	3	4
	b) Illustrate the Biosimilars? Explain with examples.	5	3	3

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M.Pharmacy (PHARMACOLOGY) I Semester (PCI) (Main) Examination Feb/March 2024

Subject: ADVANCED PHARMACOLOGY -1 MPL102T

Max.Marks: 75

Time: 3 Hours

PART- A

Note: Answer any FIVE questions. All questions carry equal marks.

Q.No.	Question	Marks	CO	BL
1	a) Discuss nuclear receptors. b) Justify how a transmission travels through a neuron with suitable examples.	10 05	3 1	2 5
2	a) Explain Neurohumoral transmission in parasympathetic nervous system. b) Outline synthesis and metabolism Dopamine	09 06	1 1	2 4
3	a) Discuss Pharmacological actions, therapeutic uses and adverse effects of acetylcholine. b) Explain mechanism of action and uses of d-tubocuarine.	12 03	4 6	2 2
4	a) Classify antipsychotics with suitable examples. Explain the mechanism of action, uses and adverse effects of Tricyclic antidepressants. b) Illustrate the pathophysiology of parkinsonism.	12 03	6 2	2 3
5	a) Classify antiarrhythmics with suitable examples Explain the basic electrophysiological actions of antiarrhythmics. b) List out the adverse effects of narcotic analgesics.	12 03	6 3	2 4
6	a) Discuss Physiological and Pathological role of histamine b) Summarise the functions of NSAIDS	12 03	2 3	2 2
7	a) Define biotransformation and elimination. b) Illustrate transmission of acetylcholine	06 09	1 6	1 3
8	a) List the drugs used in cardiac ischemia. Discuss the pharmacology of organic nitrates b) Define sympatholytic drugs. Summarise their therapeutic uses	12 03	6 4	1 1



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M.Pharmacy (Pharmacology) I Semester (PCI) (Main) Examination Feb/March 2024

Subject: Pharmacological And Toxicological Screening Methods - I MPL103T

Time: 3 Hours

Max.Marks: 75

PART- A

Note: Answer any FIVE questions. All questions carry equal marks.

Q.No.	Question	Marks	CO	BL
1	a) Define bioassay, illustrate different types of bioassays add a note on limitations of bioassays?	8	1	1,4
	b) Discuss briefly about production and applications of transgenic animals?	7	1	2,4
2	a) Enlist applications of different species and strains of animals in experimental pharmacology?	8	1	2,4
	b) Discuss about screening methods of CNS depressant drugs?	7	2	2
3	a) Discuss experimental animal models to evaluate the test drug for Parkinsonism?	8	2	2,5
	b) Enlist various methods employed in the screening of Anti-epileptics?	7	3	2,3
4	a) Describe the methods of preclinical evaluation for antiinflammatory activity?	8	3	2,4
	b) Elaborate screening methods to evaluate antiemetic agents?	7	3	2,5
5	a) Summarize screening methods to evaluate the analgesics?	8	3	2,5
	b) Summarize screening methods to evaluate the antiatherosclerotic agents?	7	3	2,5
6	a) Enlist screening methods for antihypertensive agents and add a note on any Three models?	8	4	3,2
	b) Explain any two in vitro & in vivo methods for the screening of hepatoprotective activity?	7	4	3,2
7	a) Explain the in vivo and in vitro screening methods for immunomodulatory activity?	8	5	2,4
	b) Elaborate immunoassay of insulin?	7	5	1
8	a) Give a brief account on evaluation of antidiabetic drugs?	8	4	4
	b) Summarize alternate animal experiments?	7	5	1

