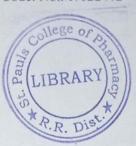


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## M.Pharmacy (PHARMACOLOGY) I Semester (PCI) (Main) Examination Feb/March 2024

Subject: ADVANCED PHARMACOLOGY -1 MPL102T

Time: 3 Hours Max.Marks: 75

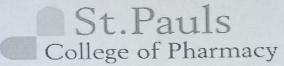
## PART- A

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

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

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

Subject: Cellular and Molecular Pharmacology MPL104T

Time: 3 Hours Max.Marks: 75

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

PART- A

(d)||III

| 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: 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                             | 8     | 1  | 1,4 |
|       | limitations of bioassays? 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 depreesant 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   |

