

QP CODE: 114328

Reg. No:.....

First Semester M.Pharm Degree Supplementary Examinations July 2025

M.Pharm (Pharmacology)

Paper IV – Cellular and Molecular Pharmacology (MPL 104T)

(Common for 2019 and 2024 Scheme)

Time: 3 Hours

Total Marks: 75

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Draw table/diagrams/flow charts wherever necessary*

Essays

(3x10=30)

1. Write about genome organization. Add a note on gene expression and its regulation.
2. Explain various types of cell culture and its procedure.
3. Detail notes about intracellular signaling pathways.

Short Notes

(9x5=45)

4. Explain cell cycles and its regulation.
5. Write a note on Biosimilars.
6. Classify tyrosine kinase receptors and nuclear receptors.
7. Write a note on ELISA and PCR.
8. Write Principle and applications of flow cytometry.
9. Explain polymorphisms affecting drug metabolism.
10. Write a note on nutrigenomics and its application.
11. Write application of functionomics.
12. Explain gene mapping and its application.
