

QP CODE: 114328

Reg. No:.....

**First Semester M.Pharm Degree Supplementary Examinations
August 2024**

M.Pharm (Pharmacology)

**Paper IV – Cellular and Molecular Pharmacology (MPL 104T)
(Common for 2017 and 2019 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. What are vectors. Explain in detail about various types of vectors used in rDNA technology.
2. Write the principle and application of genomics.
3. Define gene therapy. Discuss the principles and applications of gene therapy.

Short Notes

(9x5=45)

4. Cell culture media.
5. Write the principles and application of cell viability assay.
6. Pharmacogenomics.
7. Write in detail about calcium influx assays.
8. Write notes on biosimilars.
9. Humanized antibodies.
10. Cell cycle regulations.
11. Explain in detail about various techniques of gene transfer.
12. Explain the functions of tyrosine kinase receptors.
