

QP CODE: 114328

Reg. No:.....

**First Semester M.Pharm Degree Regular/Supplementary Examinations
March 2020**

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. Explain in detail various levels of regulation of eukaryotic gene expression
2. Explain the working principle and applications of DNA electrophoresis and SDS page
3. Explain the influence of polymorphism on drug metabolism and transportation

Short Notes

(9x5=45)

4. Biosimilars
5. Glucose uptake assay
6. Explain the importance of restriction enzymes
7. Metabolomics
8. Classify immunotherapeutics and write their clinical applications
9. Explain the importance of siRNA and micro RNA
10. Explain cell cycle and its regulation
11. Second messengers in signal transduction
12. Nuclear receptors.
