Second Semester M. Pharm Degree Supplementary Examinations August 2021

M.Pharm (Pharmacology)

Paper III: Principles of Drug Discovery (MPL 203T)

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. Discuss in detail about target validation, lead identification and lead optimization in drug discovery.

2. Discuss how prodrugs improve patient's acceptability, drugs solubility, drug distribution and drug absorption.

3. Explain rational drug design approaches employed in drug discovery.

Short Notes   **(9x5=45)**

4. Discuss the role of nucleic acid in microarrays

5. Free Wilson analysis.

6. Zinc finger proteins.

7. Antisense Oligonucleotides.

8. Explain the role of transgenic animals in target validation.

9. Explain history and development of QSAR.

10. What are the application of NMR and X-ray crystallography in protein structure predication.

11. Regression analysis.

12. Explain on site specific drug delivery and sustained drug action.

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