Second Semester M. Pharm Degree Supplementary Examinations
February 2025
M.Pharm (Pharmaceutics)

Paper III: Computer Aided Drug Development (MPH 203T)

(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 the importance of drug solubility, intestinal permeation and drug distribution in computational modeling of drug disposition.

2. Elaborate on benefits of QbD in pharmaceutical industry and regulation bodies.

3. What is statistical modeling and discuss descriptive and mechanistic modelling.

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

4. Write a note on role of P-gp efflux transporter in drug disposition.

5. What is Robotics. Mention its application.

6. Write briefly on virtual trial.

7. Explain the computer simulation in proteins and organs.

8. Explain briefly on gastrointestinal absorption simulation.

9. What are screening designs. Explain the Plackett Burman screening design.

10. Describe briefly BBB – Choline transporter.

11. Discuss on computational fluid dynamics.

12. History of computers in Research and Development.

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