Second Semester M. Pharm Degree Supplementary Examinations December 2023
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 history of computers in pharmaceutical research and development

2. Explain the active transport systems in computational modelling of drug disposition

3. Describe any one technology involved in both Artificial Intelligence (AI) and robotics

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

4. Explain in details of computer simulation for proteins and genes

5. Explain on fed Vs. fasted state in GIT absorption simulation model

6. Enumerate factorial design in optimisation of computer-aided formulation development

7. Explain on computers in market analysis

8. State the statistical parameters and nonlinearity in pharmaceutical research

9. Explain regulatory aspects of QbD in pharmaceutical product development

10. Explain computational fluid dynamics with examples

11. Explain the computational applications of development in microemulsions

12. Explain on mixture designs in pharmaceutical optimization

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