

Second Semester M. Pharm Degree Supplementary Examinations
August 2021
M.Pharm (Pharmaceutics)

Paper III: Computer Aided Drug Development (MPH 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. Explain QbD. Discuss with suitable examples. How this is useful in drug development. Explain.
2. Discuss the development of computer usage in pharmaceutical research and development.
3. How computer simulations in pharmacokinetics and pharmacodynamics is useful. Discuss with suitable examples.

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

4. Explain factorial design.
5. Explain the ethics of computing in pharmaceutical research.
6. Explain on computer aided in vitro in vivo correlation
7. Discuss the applications of machine learning in pharmaceutical industry.
8. Explain sensitivity analysis. Explain with examples.
9. Explain EVOP method of optimization. Discuss with suitable examples.
10. Discuss on computational modelling and software for studying the intestinal permeability.
11. Explain the computer simulation of proteins and genes
12. Based on in silico studies, list and explain the characteristic features required by a pharmacophore to act as a P-gp inhibitor.
