

**First Semester M.Pharm Degree Regular/Supplementary Examinations
April 2025
M.Pharm (Pharmaceutics)
Paper III – Modern Pharmaceutics (MPH103T)
(Common for 2019 and 2024 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 WHO guidelines for calibration and validation of equipment, instruments and devices.
2. Explain in detail about the objectives and policies of GMP and its role in quality control.
3. Explain the factorial design and its application in developing pharmaceutical formulations.

Short Notes

(9x5=45)

4. Explain the applications of Higuchi and Peppas plot in developing pharmaceutical formulation.
5. Discuss the techniques used to study the drug excipients interaction.
6. Explain the production and evaluation of large volume parenterals.
7. Describe diffusion and dissolution parameters.
8. Discuss about the theories of pharmaceutical dispersions.
9. Explain the kinetics of stability and stability testing.
10. Note on scope and merits of validation.
11. Explain the concept of total quality management.
12. Concept and objective of dissolution testing. Explain in detail similarity factors F1 and F2 in dissolution.
