

QP CODE: 113327

Reg. No:.....

First Semester M.Pharm Degree Supplementary Examinations July 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 in detail the concept and parameters of optimization in formulation.
2. Discuss various methods for studying drug-excipients interaction.
3. Define Validation. Explain Process Validation and Operational Validation.

**Short Notes**

**(9x5=45)**

4. Discuss about response surface methodology in formulation development.
5. Explain compaction profile of tablet.
6. Explain concept of TQM.
7. Explain  $2^2$  factorial designs.
8. Write note on sales forecasting.
9. Discuss about Chi-square test and ANOVA test.
10. Write briefly about Heckel Plots and Peppas's Plot.
11. Explain formulation considerations in the production of large volume parenterals.
12. Explain validation Master Plan.

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