

PARUL UNIVERSITY
FACULTY OF PHARMACY
M.Pharm Winter 2022 - 23 Examination

Semester: 1
Subject Code: MPH103T
Subject Name: Modern Pharmaceutics

Date: 17/03/2023
Time: 10:00 am to 1:00 pm
Total Marks: 75

Instructions:

1. Figures to the right indicate maximum marks.
2. Make suitable assumptions wherever necessary.

Q.1 Essay Type Questions. (any 2 out of 3) (15 Marks Each) (30)

1. Write a note on following:
 - a) What is the need of Optimization? Explain “Central Composite Design” with layout and description.
 - b) Explain in detail about Process validation.
2. Write a note on following:
 - a) Explain in detail about subpart D: “Equipments” as per c-GMP guidelines.
 - b) Discuss in detail the physics of tablet compression.
3. Explain in detail about different pharmacokinetic models for drug release study.

Q.2 Short Essay Type Questions. (any 5 out of 6) (5 Marks Each) (25)

1. Write a note on Drug Excipient compatibility study.
2. Give a short note on Validation Master Plan.
3. Write a note on “Inventory management and control”.
4. Describe various types of forces in Tablet compression and compaction process.
5. Write a note on “Students T-test”
6. Write a note on Total Quality Management.

Q.3 Short Answers. (2 Marks Each) (20)

1. Define Independent Variable and Dependent Variable.
2. Differentiate Small volume parenteral and large volume parenteral.
3. Explain Operational Qualification and Design Qualification.
4. Write scope and merits of validation.
5. Explain various steps involved in Material Management.
6. Describe objectives of cGMP.
7. Define tablet compression and compaction.
8. Enlist various USP dissolution apparatus.
9. Explain Heckel plot with graphical presentation in brief.
10. Explain similarity factor and difference factor.