Seat No.: _____ Enrolment No. _____

PARUL UNIVERSITY

FACULY OF PHARMACY

M.Pharm. Winter 2017 - 18 Examination

Semester: 1 **Date: 12/01/2018**
Subject Code: MPH103T **Time: 10:00 am to 1:00 pm**
Subject Name: Modern Pharmaceutics **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 short note on Response surface Design"with layout and description.
2. Explain various types of Pharmaceutical dispersion system with example, discuss stokes law in detail.
3. Describe various types of forces involved in Tablet compression and compaction Process.

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

1. Enlist various techniques use for Drug Excipient Interaction studies, explain any two techniques in detail.
2. Give a brief outline of Placket Burman design. How are the main effects computed in Placket-Burman design?
3. Explain Validation Master Plan and Validation procedure of instruments.
4. Write short note on "Full Factorial Design"with layout and description.
5. Explain about Highuchi model and Korsmeyer Peppas model for describing drug release process.
6. Explain Moore Flanner equations for comparision of Dissolution Profile with limitations.

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

1. Explain following terminologies with reference to D.O.E.:
   i) Interaction ii) Confounding effect
2. Enlist various USP Dissolution apparatus.
3. Explain following terminologies with specifications as per GMP guideline: (Any two)
   i) Change Room ii) Clean Room
4. Enlist various types of Valiadation
5. Mention various goals of Preformulation study
6. Give different subpart of c-GMP guideline
7. Mention various IPQC test performed during manufacturing of Tablet
8. What is Validation Protocol ?
9. Define Experimental Design with its importance
10. Suggest USP dissolution appratus for poorly soluble drugs with diagram