

QP Code: 104327

Reg No: .....

First Year M.Pharm Degree Examinations (Supplementary)- November 2012  
(Pharmaceutics)

Paper IV - Industrial Pharmacy

Time: 3 hrs

Maximum Marks: 100

- *Answer all questions*
- *Draw diagrams wherever necessary*

**Essays:**

**(2x20 =40)**

1. Explain the pre-formulation studies with special reference to surface area, dissolution, stability and parameters affecting absorption.
2. Explain optimization techniques in pharmaceutics and optimization parameters.

**Short Essays:**

**(6x10=60)**

3. Discuss factorial design and central composite design
4. Explain excipient compatibility
5. Discuss documentation - its relevance and importance
6. What are the regulatory requirements of clinical trials
7. Explain the following according to CGMP :
  - Production and process controls
  - Packaging and labeling controls
8. List the pharmaceutical applications of polymers and explain them.

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