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SEAT No. :

P3968

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[5246]-103

**M. Pharmacy (Semester - I)
ADVANCED PHARMACEUTICS-I
(2013 Pattern)**

Time : 3 Hours]

[Max. Marks : 50

Instructions to the candidate :

- 1) *All questions are compulsory.*
- 2) *Draw well labeled diagrams wherever necessary.*
- 3) *Figures to the right indicate full marks.*

Q1) Give significance of Preformulation studies. What preformulation studies are conducted for solid oral dosage forms? Explain with relevant examples.

[10]

Q2) Solve any three

[15]

- a) Write a note on rheology of polymers
- b) What are excipients? Discuss the selection criteria for excipients.
- c) Describe spray drying and spray congealing methods of microencapsulation.
- d) Justify "Quality is built into a product and not inspected in"

Q3) Write short notes on any three

[15]

- a) Validation of mixing process
- b) Diffusion and dissolution
- c) Cyclodextrins
- d) Hixson -Crowell and Higuchi model of Dissolution

Q4) Classify optimization methods. Describe briefly the importance of experimental design. Also add a note on contour plots.

[10]

OR

What are Accelerated, intermediate and long term stability studies. How is the shelf life prediction done on the basis of accelerated stability studies?

