

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B. Pharm. – SEMESTER – VIII • EXAMINATION – SUMMER • 2014

Subject Code: 280001

Date: 19-05-2014

Subject Name: Dosage Form Design - II

Time: 10:30 am - 01:30 pm

Total Marks: 80

Instructions:

1. Attempt any five questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

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|-------------|--|-----------|
| Q.1 | (a) Classify the pharmacokinetic Model and state the application of pharmacokinetic Model | 06 |
| | (b) Enlist the methods for determination of absorption rate constant and explain any one in detail | 05 |
| | (c) What are the problems encountered in obtaining valid urinary excretion data? | 05 |
| Q.2 | (a) Discuss the merits and demerits of controlled release formulation | 06 |
| | (b) Discuss the erosion controlled Drug Delivery System. | 05 |
| | (c) Give note on reservoir type oral Controlled Drug Delivery System. | 05 |
| Q.3 | (a) With reference to one compartment extra vascular model explain Residual concentration, Lag on absorption and Flip-flop phenomena | 06 |
| | (b) What is non-linear pharmacokinetic? Describe the equation that governs the non-linear Pharmacokinetics. | 05 |
| | (c) Explain apparent volume of distribution. State its significance | 05 |
| Q.4 | (a) Write brief note on floating drug delivery system. | 06 |
| | (b) Discuss in brief delivery systems for oral mucosa | 05 |
| | (c) Explain pharmaceutical approach to develop colonic Drug Delivery Systems in brief | 05 |
| Q.5 | (a) Discuss the factors that contribute to drug interaction. | 06 |
| | (b) What are the various ways of reducing risk of drug interaction? | 05 |
| | (c) Explain the significance of Renal clearance and dosage regimen. | 05 |
| Q. 6 | (a) Write a note on implantable osmotic drug delivery system. | 06 |
| | (b) Explain rate programmed transdermal drug delivery system in brief. | 05 |
| | (c) Classify and describe the various approaches employed for ocular drug delivery. | 05 |
| Q.7 | (a) What are the advantages and disadvantages of physiological model? | 06 |
| | (b) Write a note on nanosuspension. | 05 |
| | (c) What processes of ADME are known to show non-linearity? Give examples | 05 |
