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.**

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**

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