Seat No.: _____ Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B.PHARM - SEMESTER– 8 EXAMINATION – SUMMER -2019

Subject Code: 2280001 **Date: 04-05-2019**

Subject Name: Dosage form Design II

Time: 10:30 AM TO 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)**	Explain biological factors affecting the design of oral sustained release drug delivery system.	**06**
	(b)	Write note on Bio erodible controlled drug delivery system.	**05**
	(c)	Discuss various causes for non linearity of drug	**05**
Q.2	**(a)**	Explain effect of porosity and tortuosity on controlled drug delivery system.	**06**
	(b)	Explain “Drug interaction” Discuss ADME drug interaction with suitable example	**05**
	(c)	Define clinical pharmacokinetics. Explain methods for the calculation of creatinine from serum creatinine concentration.	**05**
Q.3	**(a)**	Explain dosage adjustment in patients with renal and hepatic failure.	**06**
	(b)	Discuss in brief about PULSINCAP technology	**05**
	(c)	Write merits of non compartmental analysis. Explain AUC & AUMC plots.	**05**
Q.4	**(a)**	Give criteria for obtaining valid urinary excretion method.	**06**
	(b)	Write a note on hydrogel	**05**
	(c)	Explain the method of residuals for the calculation of absorption rate constant from oral data.	**05**
Q.5	**(a)**	Discuss the formulation of parenteral emulsion and suspensions.	**06**
	(b)	Discuss extraction ratio and hepatic clearance in detail.	**05**
	(c)	Explain michaeles menten equation.	**05**
Q. 6	**(a)**	Explain non erodible and erodible ocular control release system.	**06**
	(b)	Write note on matrix tablets.	**05**
	(c)	Write fundamental and rational of modified release drug delivery system.	**05**
Q.7	**(a)**	Give on account of approaches for designing of gasro retentive dosage form.	**06**
	(b)	Give advantages and disadvantages of compartment modeling.	**05**
	(c)	Describe floating drug delivery system.	**05**

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