Seat No.: _____ Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B. Pharm. - SEMESTER–8 • EXAMINATION – SUMMER -2018

Subject Code: 2280001 **Date: 28/04/2018**

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)**	Enlist various methods of preparation of microspheres and explain double emulsion method in detail.	**06**
	(b)	Explain influence of extraction ratio in hepatic clearance.	**05**
	(c)	Enlist different types of hydrogels and explain in situ gel in detail.	**05**
Q.2	**(a)**	Enumerate various parenteral drug delivery system and explain any one in detail.	**06**
	(b)	Write short note on Michaeles Menton Equation.	**05**
	(c)	Explain importance of tortuosity and porosity in dissolution.	**05**
Q.3	**(a)**	Write a note on pharmacokinetic drug interactions with examples.	**06**
	(b)	Discuss ideal characteristics of drug eligible for transdermal drug delivery system.	**05**
	(c)	Explain lag time and burst effect in controlled drug delivery system with diagram.	**05**
Q.4	**(a)**	Explain catenary and mammillary compartment models in detail.	**06**
	(b)	Briefly explain colon targeted osmotic drug delivery system.	**05**
	(c)	Discuss in brief, effect of disease on colonic absorption of drugs.	**05**
Q.5	**(a)**	Explain in detail, evaluation parameters of transdermal patch.	**06**
	(b)	Differentiate liposomes and niosomes.	**05**
	(c)	Write a note on reservoir type of controlled drug delivery system.	**05**
Q. 6	**(a)**	Enlist different types of targeted drug delivery system and explain any one in detail.	**06**
	(b)	Give example of hydrophobic type of matrix system and explain mechanism of drug release from it.	**05**
	(c)	Explain appropriately with equations if necessary, dosage adjustment in patients with renal failure.	**05**
Q.7	**(a)**	Write short note on Pulsincap with appropriate figure.	**06**
	(b)	Elaborate effervescent system in GRDDS.	**05**
	(c)	Define Cmax, Volume of distribution, compartment model, Total clearance and Clinical pharmacokinetics.	**05**

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