Seat No.: _____ Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

M.PHARM – SEMESTER-II - EXAMINATION – SUMMER 2017

Subject Code: 2920102 **Date: 29/05/2017**

Subject Name: Novel Drug Delivery System Part-I

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)**	Discuss the classification, merits and demerits of GRDDS.	**06**
	(b)	Comment: Osmotic tablet follows zero order drug release pattern.	**05**
	(c)	How will you evaluate the colon targeted drug delivery system?	**05**
Q.2	**(a)**	Explain the specific evaluation parameters for floating tablet.	**06**
	(b)	Comment: Colon is a specific site for proteins and peptide drug delivery system.	**05**
	(c)	Explain the anatomy and physiology of human buccal mucosa.	**05**
Q.3	**(a)**	Explain the physicochemical, dosage form related and physiological parameters for selection of drug for GRDDS.	**06**
	(b)	Comment: the onset of action of buccal drug delivery is slow.	**05**
	(c)	Give the merits and demerits of osmotic drug delivery system. Discuss osmogens.	**05**
Q.4	**(a)**	Give the different techniques for modified release capsule.	**06**
	(b)	Comment: Diltiazem hydrochloride can be incorporated in buccal formulation.	**05**
	(c)	Explain the techniques for production of liposome for parenteral delivery.	**05**
Q.5	**(a)**	Explain the different taste masking techniques with suitable examples.	**06**
	(b)	Give the broad classification of novel parenteral drug delivery system.	**05**
	(c)	Write a short note on recent innovation in liquid formulation.	**05**
Q. 6	**(a)**	Give the importance of extractable and leachable for selection of containers and closures.	**06**
	(b)	Explain the different types of plastics used in containers with their characteristics.	**05**
	(c)	Write a short note on formulation of sublingual dosage form with selection of drug.	**05**
Q.7	**(a)**	What is secondary packaging? Give its importance for stability of product.	**06**
	(b)	Explain the particle coating techniques with its demerits.	**05**
	(c)	Explain the formulation of rubber closures. Explain the demerits of rubber closures.	**05**

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