Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

M. Pharm. Semester – IIND Examination –June/July- 2011

Subject code: 920102

Subject Name: Novel Drug Delivery System Part-I

Date:01/07/2011 **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)**	Describe the environmental control parameters in parenteral manufacturing.	**06**
	(b)	Explain additives used in small volume parenterals.	**05**
	(c)	Discuss sustained release parenteral injections with suitable examples.	**05**
Q.2	**(a)**	Discuss the formulation of colon targeted drug delivery system.	**06**
	(b)	Explain the mechanism of drug release from osmotic dosage forms giving its advantages and disadvantages.	**05**
	(c)	Discuss the merits and demerits of sublingual dosage forms. How are they evaluated?	**05**
Q.3	**(a)**	Discuss the influence of excipents in the formulation of gastro-retentive drug delivery systems.	**06**
	(b)	Describe formulation of ocular controlled drug delivery systems.	**05**
	(c)	Discuss in detail the recent innovations in capsule technology.	**05**
Q.4	**(a)**	Discuss the design of transdermal drug delivery system.	**06**
	(b)	Discuss various stability aspects of novel liquid dosage forms.	**05**
	(c)	State the applications of nanoparticles.	**05**
Q.5	**(a)**	Write notes on quality control of glass containers.	**06**
	(b)	Give application of liposome in drug delivery system.	**05**
	(c)	Describe long acting contraceptive formulations.	**05**
Q. 6	**(a)**	Give an account of bio-degradable polymers used in formulation of controlled drug delivery system.	**06**
	(b)	Discuss the in-vitro evaluation models for oral drug delivery systems.	**05**
	(c)	Discuss the regulatory aspects for packaging materials.	**05**
Q.7	**(a)**	Enumerate the various factors in sterilization process selection for parenterals with example.	**06**
	(b)	Give the importance of pharmaceutical packaging and discuss the various stability aspects.	**05**
	(c)	Explain evaluation methods for mucoadhesive drug delivery.	**05**

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