

GUJARAT TECHNOLOGICAL UNIVERSITY
B.PHARM.-SEMESTER-VIII- EXAMINATION –SUMMER-2017

Subject Code: 280001**Date: 26/04/2017****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)	What is loading and maintenance dose? How the same can be estimated?	06
	(b)	Write in brief the drug release patterns of controlled release dosage forms.	05
	(c)	Write a note on erosion-controlled drug delivery system.	05
Q.2	(a)	Describe different non-erodible ocular inserts.	06
	(b)	Write fundamentals and rational of modified release drug delivery systems.	05
	(c)	Write a note on matrix tablets.	05
Q.3	(a)	Write objectives, advantages and disadvantages of controlled release dosage forms.	06
	(b)	Enumerate factors considered in the designing of controlled release dosage forms. Explain any one in detail.	05
	(c)	What is liposome? Give the characteristics, advantages and disadvantages of liposomes.	05
Q.4	(a)	Write advantages of gastro-retentive drug delivery systems. Describe approaches for GRDDS.	06
	(b)	Write short note on Hydrogel.	05
	(c)	Discuss role of permeation enhancers in development of Transdermal drug delivery system.	05
Q.5	(a)	Explain Wagner-nelson method for estimation of absorption rate constant.	06
	(b)	Write note on nanoparticulate systems.	05
	(c)	What is a microsphere? Enlist the methods of preparation of microspheres and explain any one. Enlist the evaluation parameters of microspheres.	05
Q. 6	(a)	Define renal clearance. Enlist biological factors affecting biotransformation of drugs.	06
	(b)	Write a note on volume of distribution.	05
	(c)	Define: Clearance; First pass effect; Extraction ratio; Hepatic clearance; and Clearance ration.	05
Q.7	(a)	Describe pharmacokinetic drug interactions and their significance in combination therapy.	06
	(b)	Explain Michaelis- Menten equation.	05
	(c)	Discuss various causes for non-linearity of drug.	05
