

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
M.PHARM - SEMESTER-2 EXAMINATION – SUMMER-2019

Subject Code: 2920102

Date: 29/05/2019

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) Enumerate various approaches for colon targeting. Describe in detail microbially triggered system. (06)
- (b) Write a note on pulsatile drug delivery system with its applications. (05)
- (c) Describe various factors affecting formulation of gastroretentive drug delivery systems. (05)
- Q.2 (a) Enumerate various approaches for gastroretentive drug delivery systems. Describe in detail about effervescent approach. (06)
- (b) Describe in brief about evaluation parameters of transdermal drug delivery systems. (05)
- (c) Explain pulsing cap technology in detail. (05)
- Q.3 (a) Write a short note on SMEDDS. (06)
- (b) Discuss bottom-up approach in nanotechnology. (05)
- (c) What are criteria for selection of packaging materials for pharmaceuticals? (05)
- Q.4 (a) Discuss recent innovations in liquid formulations. (06)
- (b) Describe rationale for mouth dissolving tablets. (05)
- (c) Give criteria for sublingual drug delivery system. (05)
- Q.5 (a) Write a short note on parenteral depot formulations. (06)
- (b) Write a note on hydrogels. (05)
- (c) Explain formulation aspects for high density approach in GRDDS. (05)
- Q.6 (a) Write a note on dissolution enhancement of poorly soluble drugs. (06)
- (b) Discuss spray drying microencapsulation. (05)
- (c) Write a note on *in-vitro* evaluation of mucoadhesive properties. (05)
- Q.7 (a) Explain basic components of Osmotic drug delivery systems in detail. (06)
- (b) Differentiate liposomes and niosomes. (05)
- (c) Describe in brief various approaches of taste masking. (05)
