

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B.PHARM – SEMESTER – 8- EXAMINATION – WINTER - 2018

Subject Code: 2280001**Date: 15/11/2018****Subject Name: Dosage form Design II****Time: 02:30 PM TO 05:30 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) Give the difference between conventional and controlled release system. Describe the advantages and limitations of sustained release formulations. **06**
(b) Write a note on dissolution and diffusion controlled release system. **05**
(c) Explain in detail evaluation of oral controlled release formulations. **05**
- Q.2** (a) Discuss in detail the evaluation parameters for Transdermal patches. **06**
(b) Write a note on colon targeted drug delivery system. **05**
(c) Discuss the various approaches for floating drug delivery systems **05**
- Q.3** (a) Write advantages of gastro-retentive drug delivery. Explain expandable approach. **06**
(b) Explain liposomes and niosomes. Describe any one method for their preparation. **05**
(c) Discuss the formulation development of osmotic tablets with example. **05**
- Q.4** (a) What are pharmacokinetic models? Explain in detail one compartment model. **06**
(b) Explain Wagner nelson method in detail. **05**
(c) Describe the method of residuals for determination of absorption rate constant. **05**
- Q.5** (a) Define C_{max}, Volume of distribution, compartment model, Total clearance and Clinical pharmacokinetics. **06**
(b) Explain dosage adjustment in patients with hepatic failure. **05**
(c) Explain term: Drug interaction. Discuss ADME drug interactions with suitable examples. **05**
- Q.6** (a) Enlist different types of targeted drug delivery system and explain any one in detail. **06**
(b) Discuss in detail about PULSINCAP Technology. **05**
(c) Write a note on: Microspheres. **05**
- Q.7** (a) Explain clinical pharmacokinetics? Enlist its applications in drug therapy. **06**
(b) What are loading and maintenance dose? How are they calculated? **05**
(c) Write a short note on Hydrogel. **05**
