

Seat No.: _____

Enrolment No. _____

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

Subject Code:2280016**Date: 28/11/2018****Subject Name: Current advances in Novel Drug Delivery Systems****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) What are liposomes? Discuss thin film hydration method in detail. **06**
(b) Differentiate Liposomes and Nanoparticles. **05**
(c) Explain stealth liposomes. **05**
- Q.2** (a) What is multiparticulate drug delivery? Explain techniques of pelletization. **06**
(b) Enlist methods of preparation of niosomes. Describe any one in detail. **05**
(c) Differentiate microspheres & microcapsules. Explain double emulsification method. **05**
- Q.3** (a) How Transdermal Systems are tested In-vitro for drug delivery and absorption? **06**
(b) Discuss factors consideration related to drug & excipients selection in TDDS. **05**
(c) Discuss design and applications of Iontophoretic drug delivery system. **05**
- Q.4** (a) What is mucoadhesion? What are characterization parameters for it? **06**
(b) Explain the terms--Films, Patches, Diskette, strips. **05**
(c) Describe significance of minitablets in oral drug delivery system. **05**
- Q.5** (a) Explain the evaluation techniques of Self Emulsifying Drug Delivery System. **06**
(b) Explain the selection procedure of excipients in self emulsifying drug delivery systems. **05**
(c) Describe types of excipients used in preparation of SEDDS. **05**
- Q. 6** (a) Define Insitu gel. Discuss various approaches of insitu gel preparation. **06**
(b) Explain the Temperature Sensitive In-situ gelation process **05**
(c) Write a note on Transdermal patch. **05**
- Q.7** (a) Write a note on In-vitro release of Nanoparticle. **06**
(b) Write a short note on Sonophoresis. **05**
(c) Classify liposomes based on their structure. Describe merits and demerits of liposomes. **05**
