

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B.PHARM - SEMESTER- 8 EXAMINATION – WINTER -2019**Subject Code: 2280016****Date: 27-11-2019****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 the demerits of Nanoparticles? Explain its methods of preparation. **06**
(b) What do you mean by Vesicular Drug Delivery System? Give its advantages, disadvantages and applications. **05**
(c) Differentiate between Liposomes and Niosomes. **05**
- Q.2** (a) Write a note on characterization of Niosomes. **06**
(b) Enumerate different methods to prepare Micro-capsules and explain any one in detail. **05**
(c) Explain drug loading concept in Vesicular Drug Delivery System. **05**
- Q.3** (a) What is Mucoadhesive film? Classify them and discuss characterization of same. **06**
(b) Explain Electro-osmosis method for Transdermal Drug Delivery System. **05**
(c) Enlist the theories of Mucoadhesion and explain mechanism for Bioadhesion. **05**
- Q.4** (a) Enlist different approaches of In-situ Gel preparation. Explain enzyme sensitive In-situ Gel in detail. **06**
(b) Differentiate between Diskettes and Strips. **05**
(c) Differentiate between Iontophoresis and Sonophoresis. **05**
- Q.5** (a) Explain any three out of the below mentioned terms, **06**
i. Proliposomes
ii. Dry granular Liposomes
iii. Protransferosomes
iv. Lipopolyplexes
v. Ethosomes
vi. Transferosomes
(b) Describe evaluation parameters of SEDDS. **05**
(c) Explain drug loading concept in Vesicular Systems. **05**
- Q.6** (a) Explains different mechanisms of Sonophoresis. **06**
(b) Explain Drug selection criteria to formulate Transdermal patches. **05**
(c) Write a short note on Minitablets. **05**
- Q.7** (a) Describe recent Innovations in Pelletization techniques. **06**
(b) Write a short note on Phase Separation Coacervation method. **05**
(c) Describes in detail applications of Hydrogels. **05**
