

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**B.PHARM - SEMESTER- 8 EXAMINATION – SUMMER -2019**

**Subject Code: 2280016****Date: 18-05-2019****Subject Name: Current advances in Novel Drug Delivery Systems****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) Classify liposomes. Describe merits and demerits of liposomes. Describe pharmaceutical applications of liposomes. **06**  
(b) Explain evaluation parameter of liposomes. **05**  
(c) Write the difference between Liposomes and Niosomes. **05**
- Q.2** (a) Enlist the method for microcapsules and explain coacervation method. **06**  
(b) Explain solvent evaporation method for preparation of microspheres. **05**  
(c) Write a note on characterization of pellets. **05**
- Q.3** (a) What is sonophoresis? Describe in detail Sonophoresis. **06**  
(b) Describe merits and demerits of iontophoresis. Discuss factor affecting Iontophoretic drug delivery system. **05**  
(c) Which drug is ideal candidate for TDDS? Discuss formulation composition use in Transdermal drug delivery systems. **05**
- Q.4** (a) Enlist the theories of mucoadhesion. Write the mechanism of mucoadhesion. Explain *in vitro* evaluation bioadhesion test of film. **06**  
(b) Explain in detail evaluation parameter of Mucoadhesive patches. **05**  
(c) Write a short note on Diskette. **05**
- Q.5** (a) Enumerate different type of Nanoparticulate drug delivery system. Explain method to prepare nanoparticle by polymerization based method. **06**  
(b) Describe evaluation parameters of nanoparticles. **05**  
(c) Describe pharmaceutical applications of nanoparticles. **05**
- Q.6** (a) Why is called Self emulsifying system? Write pharmaceutical applications of SEDDS. **06**  
(b) Describe the selection procedure of excipients in self emulsifying drug delivery systems. **05**  
(c) Describe evaluation parameters of SEDDS. **05**
- Q.7** (a) What is In situ gel? Explain various approaches of in situ gel preparation. **06**  
(b) Explain evaluation parameter for In situ gels. **05**  
(c) Enumerate different type of Transdermal patch. Describe the composition of transdermal film. **05**

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