

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B.PHARM - SEMESTER- 8 EXAMINATION – SUMMER -2020

Subject Code: 2280016**Date: 29-10-2020****Subject Name: Current advances in Novel Drug Delivery Systems****Time: 10:30 AM TO 1:30 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) | Enlist the polymers used in Nanoparticles preparation. Explain Polymerization method of preparing Nanoparticles. | 06 |
| | (b) | Describe the pharmaceutical applications of Nanoparticles. | 05 |
| | (c) | How do you characterize the Nanoparticles? | 05 |
| Q.2 | (a) | Define Liposomes. Classify according to structure and explain the evaluation methods. | 06 |
| | (b) | List out the methods of preparing Liposomes and explain Thin film Hydration method. | 05 |
| | (c) | Differentiate Liposomes and Niosomes. | 05 |
| Q.3 | (a) | Explain the suitability of Drugs for formulating TDDS with examples. | 06 |
| | (b) | Discuss Design and applications of Iontophoretic delivery system. | 05 |
| | (c) | Describe the composition of Transdermal patch. | 05 |
| Q.4 | (a) | Explain the methods of evaluating Mucoadhesive strength. | 06 |
| | (b) | Discuss the rationale, applications and limitations of mucoadhesive drug delivery systems. | 05 |
| | (c) | Differentiate i) Iontophoresis and Sonophoresis ii) Film and Diskette | 05 |
| Q.5 | (a) | Define Pellet. Give the advantages and disadvantage. Explain any one method of preparation. | 06 |
| | (b) | Enumerate excipients used in Self Emulsifying Drug Delivery Systems. | 05 |
| | (c) | Differentiate Microsphere and Microcapsule. Characterize the microsphere. | 05 |
| Q.6 | (a) | Give a brief account on In-situ gelation. | 06 |
| | (b) | Write short notes on Bioadhesive polymers. | 05 |
| | (c) | What is the rationale behind in formulating Minitablets? Explain. | 05 |
| Q.7 | (a) | Discuss theories of Bioadhesion. | 06 |
| | (b) | State the need for formulating SEDDS and methods of evaluation. | 05 |
| | (c) | Explain solvent evaporation method of preparing Microsphere. | 05 |
