

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B.Ph. - SEMESTER- VII EXAMINATION – WINTER -2020**Subject Code: BP704TT****Date: 08/01/2021****Subject Name: Novel Drug Delivery Systems****Time: 10:30AM To 12:30PM****Total Marks: 54****Instructions:**

1. Attempt any **THREE** questions from Q-1 to Q-6.
2. Q.7 is compulsory to attempt.
3. Make suitable assumptions wherever necessary.
4. Figures to the right indicate full marks.

- Q.1** (a) Write a note on Dissolution and Diffusion controlled release system. **06**
(b) Explain Biological factors affecting the design of oral sustained release drug delivery system. **05**
(c) Briefly describe the importance of various properties of polymers. **05**
- Q.2** (a) What properties are required for the drug to be a candidate for Transdermal drug delivery system? Explain formulation of Transdermal drug delivery system. **06**
(b) Describe Microencapsulation technique for particle coating. **05**
(c) Define Muco adhesion. Describe the mechanisms of Bio adhesion. **05**
- Q.3** (a) Discuss limitations of Buccal delivery system. Give a detail about Mucoadhesive polymers for Buccal delivery. **06**
(b) Give on account of approaches for designing of Gasro retentive dosage form. **05**
(c) Discuss in detail the evaluation parameters for Transdermal patches. **05**
- Q.4** (a) Discuss method of preparation of Nano particles. **06**
(b) Classify Liposomes? Why Liposomes are considered versatile carriers for parenteral drug delivery. **05**
(c) Define Neosomes. Differentiate between liposomes and neosomes. Enlist various applications of Neosomes in pharmaceuticals. **05**
- Q.5** (a) Describe the formulation of Nasal sprays. How is it evaluated? **06**
(b) Explain in detail the method of producing Monoclonal antibodies by Hybridoma technology. **05**
(c) Discuss merits, demerits and application of Intra uterine devices (IUDs) **05**
- Q. 6** (a) Discuss challenges of Ocular drug delivery system. Suggest their remedies. **06**
(b) Discuss any one innovation in Implantable drug delivery system in details. **05**
(c) Write a note on Active targeting. **05**
- Q.7** (a) Discuss recent innovations in MDI (Metered dose inhaler) technology. **06**
OR
(a) Discuss the formulation development of Osmotic tablets with example. **06**
OR
(a) Write a note on evaluation parameters of Liposomes. **06**
