

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.

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|-------------|--|-----------|
| 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 |
