

GUJARAT TECHNOLOGICAL UNIVERSITY
B.PHARM – SEMESTER – 7 EXAMINATION – SUMMER-2025

Subject Code: BP704TT**Date: 17-05-2025****Subject Name: Novel Drug Delivery System****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.

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| Q.1 | (a) Explain the biological process involved in drug targeting. | 06 |
| | (b) Targeted drug delivery system is more advantageous than conventional drug delivery system. Explain with examples. | 05 |
| | (c) Classify different types of liposomes based on structure, method of preparation and application. | 05 |
| Q.2 | (a) Explain various approaches to floating drug delivery system. | 06 |
| | (b) What do you mean by GRDDS. Also discuss its merit and demerits. | 05 |
| | (c) Differentiate between Metered Dose Inhaler and Dry Powder Inhaler. | 05 |
| Q.3 | (a) Describe coacervation phase separation method for microencapsulation. | 06 |
| | (b) Enlist the applications of microencapsulation. | 05 |
| | (c) Write a note on Nebulizers. | 05 |
| Q.4 | (a) Discuss evaluation parameters for Transdermal drug delivery system. | 06 |
| | (b) Elaborate different types of Transdermal patches. | 05 |
| | (c) Explain advantages, disadvantages and application of buccal drug delivery. | 05 |
| Q.5 | (a) Enlist different approaches of control drug delivery system. Describe diffusion controlled drug delivery system in detail. | 06 |
| | (b) Classify the polymers in detail giving suitable examples. | 05 |
| | (c) Differentiate between control drug delivery and delayed drug delivery system. | 05 |
| Q.6 | (a) Discuss various types of factors affecting mucoadhesion in mucoadhesive drug delivery system | 06 |
| | (b) What do you mean by In-situ ophthalmic gel. Describe various mechanisms to achieve it. | 05 |
| | (c) Explain the method of preparation of Nanoparticles. | 05 |
| Q.7 | (a) What are monoclonal antibodies. Discuss their applications and limitations. | 06 |
| | (b) Discuss various factors controlling the drug release rate from the osmotic pump. | 05 |
| | (c) Write a note on "Hormone eluting IUDs". | 05 |
