

GUJARAT TECHNOLOGICAL UNIVERSITY
B.PHARM - SEMESTER- 7 EXAMINATION – SUMMER -2023

Subject Code: BP704TT**Date: 27/06/2023****Subject Name: Novel Drug Delivery System****Time:02.30 p.m. to 5.30 p.m.****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) Enlist different approaches of controlled drug delivery system. Write a note on diffusion-controlled drug delivery system in detail. | 06 |
| | (b) Discuss physicochemical properties of drugs relevant to controlled release formulations. | 05 |
| | (c) Differentiate controlled, sustained and delayed drug delivery system and write the advantages and disadvantages of controlled drug delivery system. | 05 |
| Q.2 | (a) Write a note on biodegradable polymers used in controlled drug delivery system. | 06 |
| | (b) List the different methods used to formulate microcapsules. Explain any one in detail. | 05 |
| | (c) Write a note on evaluation of mucoadhesive formulation. | 05 |
| Q.3 | (a) Write the drug release mechanism of microcapsules and microspheres in detail. | 06 |
| | (b) Write the application of Implant and Explain the implanted Osmotic Pump. | 05 |
| | (c) Write a note on components of TDDS. | 05 |
| Q.4 | (a) List the different approaches of GRDDS and write a note on altered density approach. | 06 |
| | (b) Discuss the formulation and evaluation of DPI. | 05 |
| | (c) Write a brief note on Permeation enhancer used in TDDS. | 05 |
| Q.5 | (a) Explain the concept and biological process involved in drug targeting. | 06 |
| | (b) Write the application of Nanoparticles in drug targeting. | 05 |
| | (c) Differentiate liposomes and Niosomes. Write the method of preparation of Niosomes. | 05 |
| Q. 6 | (a) Define Monoclonal Antibody. Discuss the application of it in drug targeting. | 06 |
| | (b) Write a note on Ocuserts. | 05 |
| | (c) Write intra ocular barriers and methods to overcome. | 05 |
| Q.7 | (a) Write a note on Intra-uterine devices. | 06 |
| | (b) Discuss the principles of Bioadhesion in detail. | 05 |
| | (c) Differentiate Spray drying and spray congealing method used in microencapsulation. | 05 |
