

GUJARAT TECHNOLOGICAL UNIVERSITY
B. Ph. – SEMESTER-VII – EXAMINATION – SUMMER -2022

Subject Code: BP704TT**Date: 09/06/2022****Subject Name: Novel Drug Delivery Systems****Time: 02:30PM TO 05:30PM****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) | Discuss pH-partition hypothesis theory. | 06 |
| | (b) | Enlist the different physicochemical properties of the drug affecting the design of controlled drug delivery system. Explain the dissolution controlled dosage form. | 05 |
| | (c) | Write the application of polymers in formulation of controlled release drug delivery systems. | 05 |
| Q.2 | (a) | Discuss the spray drying method for the preparation of microencapsulation. | 06 |
| | (b) | Write the advantages, disadvantages and application of microsphere. | 05 |
| | (c) | Explain the principle of bioadhesion. | 05 |
| Q.3 | (a) | Write the concept of implants and osmotic pump. | 06 |
| | (b) | Discuss the classification of polymer based on polymerization process. | 05 |
| | (c) | Explain the salient features of DPI and MDI. | 05 |
| Q.4 | (a) | Explain the factors affecting the drug permeation through skin. | 06 |
| | (b) | Write a note on components of TDDS. | 05 |
| | (c) | List the different approaches of GRDDS and write a note on any one. | 05 |
| Q.5 | (a) | Explain the concept and biological process involved in drug targeting. | 06 |
| | (b) | Differentiate Liposomes and Niosomes. Discuss the application of liposomes | 05 |
| | (c) | List the different method of preparation of nanoparticle. Explain any one in detail. | 05 |
| Q. 6 | (a) | Discuss the intra ocular barriers and methods to overcome it. | 06 |
| | (b) | Write the advantages of IUDs and its application. | 05 |
| | (c) | Write a note on ocuserts. | 05 |
| Q.7 | (a) | Write the rational and application of GRDDS. | 06 |
| | (b) | Discuss the formulation considerations of buccal delivery systems | 05 |
| | (c) | Write the application of nasopulmonary drug delivery system. | 05 |
