# GUJARAT TECHNOLOGICAL UNIVERSITY
## B.PHARM - SEMESTER– 7 EXAMINATION – WINTER -2024

**Subject Code:BP704TT**                                    **Date: 28-11-2024**
**Subject Name: Novel Drug Delivery System**
**Time:10.30 AM TO 01.30 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)** | Name the different targeted drug delivery systems. Explain the advantages of Targeting the drug. | **06** |
| | **(b)** | Write short notes on permeation enhancers used in Transdermal delivery. | **05** |
| | **(c)** | What characters of drug are making it suitable for formulating Transdermal drug delivery systems? | **05** |
| **Q.2** | **(a)** | Differentiate: Controlled and sustained delivery, Matrix and Reservoir type of systems, Microspheres and Microcapsules. | **06** |
| | **(b)** | What are the physicochemical properties to be considered while formulating controlled release formulations? | **05** |
| | **(c)** | Compare and contrast the solvent evaporation method of microencapsulation and Nanoparticles. | **05** |
| **Q.3** | **(a)** | State the evaluation parameters of Ocuserts and explain. | **06** |
| | **(b)** | Write short notes on Acrylic polymers used in pharmaceutical formulation. | **05** |
| | **(c)** | Explain the various theories of Bioadhesion. | **05** |
| **Q.4** | **(a)** | Diffentiate: Iontophoresis and Sonophoresis, Buccal and sublingual film, Nasal and Pulmonary route of administration | **06** |
| | **(b)** | Write short notes on Metered dose inhalers. | **05** |
| | **(c)** | Explain the applications of Monoclonal Antibodies. | **05** |
| **Q.5** | **(a)** | What are the various approaches of GRDDS? Explain any one. | **06** |
| | **(b)** | Write short notes on various cellulose types as Polymers. | **05** |
| | **(c)** | How to develop IUD? | **05** |
| **Q. 6** | **(a)** | Compare Elementary osmotic pump, Higuchi Leeper Osmotic pump. | **06** |
| | **(b)** | State the various methods of formulating Nanoparticles and explain any two. | **05** |
| | **(c)** | Implants are patient compliance dosage forms. Justify true or not. | **05** |
| **Q.7** | **(a)** | Name the vesicular drug delivery systems and explain the method of formulation. | **06** |
| | **(b)** | Write short notes on MOAb. | **05** |
| | **(c)** | Explain the evaluation parameters of Nanoparticles. | **05** |

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