

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**B.Pharm – SEMESTER VII– • EXAMINATION – SUMMER -2021**

**Subject Code:BP704TT****Date: 06/08/2021****Subject Name: Novel Drug Delivery Systems****Time:10:30AM TO 01:30PM****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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|-------------|-----|--|-----------|
| <b>Q.1</b>  | (a) | State the physico chemical properties influencing controlled release   | <b>06</b> |
|             | (b) | Name the different controlled release delivery systems and differentiate one from each other                             | <b>05</b> |
|             | (c) | Define: controlled, sustained, delayed, time and prolonged releases  | <b>05</b> |
| <b>Q.2</b>  | (a) | Classify polymers based on sources. Explain Acrylic polymers in detail   | <b>06</b> |
|             | (b) | Explain different methods of formulating Nanoparticles   | <b>05</b> |
|             | (c) | Give a brief account on biodegradable polymers   | <b>05</b> |
| <b>Q.3</b>  | (a) | Differentiate microsphere and microcapsule. Explain solvent evaporation method of microsphere formulation                | <b>06</b> |
|             | (b) | Differentiate buccal and sublingual route. What are the basic excipients required for formulating transmucosal delivery? | <b>05</b> |
|             | (c) | Write short notes on tests to determine bioadhesive strength.  | <b>05</b> |
| <b>Q.4</b>  | (a) | Comment on suitability of drug candidates for transdermal delivery with few examples.                                    | <b>06</b> |
|             | (b) | Discuss different parameters to be evaluated for transdermal patches.  | <b>05</b> |
|             | (c) | Write short notes on Dental implants   | <b>05</b> |
| <b>Q.5</b>  | (a) | Give a brief account on Floating drug delivery systems.  | <b>06</b> |
|             | (b) | Write short notes on applications of GRDDS.  | <b>05</b> |
|             | (c) | How the particle size plays role in pulmonary delivery and methods of controlling the size?                              | <b>05</b> |
| <b>Q. 6</b> | (a) | Define Liposome. Write methods of formulating SUVs.  | <b>06</b> |
|             | (b) | Discuss the advantages of Targeted delivery.   | <b>05</b> |
|             | (c) | Discuss ALZET type of pump.  | <b>05</b> |
| <b>Q.7</b>  | (a) | What are the barriers of ocular delivery and methods of overcoming the same?   | <b>06</b> |
|             | (b) | Write short notes on contraceptive IUDs.   | <b>05</b> |
|             | (c) | Justify: MoAbs are targeted delivery systems.  | <b>05</b> |

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