



Roll No:

**B PHARM  
(SEM-VII) THEORY EXAMINATION 2020-21  
NOVEL DRUG DELIVERY SYTEM**

Time: 3 Hours

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Total Marks: 75

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

**SECTION A**

1. Attempt all questions in brief.

10 x 2 = 20

- a. Define microparticles.
- b. Define microencapsulation.
- c. Classify GRDDS
- d. Name four methods of microencapsulation along with examples
- e. What are monoclonal anti bodies?
- f. Polymer Matrix Diffusion-Controlled DDS
- g. Define Hydrodynamic pressure activate DDS
- h. Factors considered while development of nasal drug delivery system.
- i. Give Biomedical application of Nasal DDS
- j. Classify polymers.

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**SECTION B**

2. Attempt any two parts of the following:

2 x 10 = 20

- a. Discuss implantable drug delivery system with special emphasis on osmotic pump.
- b. Enumerate formulation approaches of TDDS.
- c. Development of IUDs. What are its advantages & disadvantages?

**SECTION C**

3. Attempt any five parts of the following:

7 x 5 = 35

- a. Define targeted drug delivery system and explain its approaches.
- b. What are intra ocular barriers? Write a note on ocusert.
- c. Discuss metered dose inhalers.
- d. Discuss floating drug delivery system.
- e. Write a note on liposomes, niosomes and nanoparticles
- f. Explain the principles of bioadhesion. Give advantages and disadvantages of mucosal drug delivery system.
- g. Draw a neat labeled diagram of skin. Discuss the factors affecting skin permeation.