

NOVEL DRUG DELIVERY SYSTEM (NDDS) – GUESS PAPER 2025–26

SECTION A (10 × 2 = 20)

1. Define Microencapsulation.
2. Define GRDDS.
3. Write principle of liposomes.
4. Define Niosomes and Nanoparticles.
5. Define metered dose inhalers.
6. Define osmotic pump.
7. What is mucoadhesion?
8. Define intraocular barriers.
9. Write applications of monoclonal antibodies.
10. Define buccal drug delivery system.

SECTION B (Attempt any TWO – 2 × 10 = 20)

1. Discuss formulation approaches of Transdermal Drug Delivery Systems.
2. Explain implantable drug delivery systems with emphasis on osmotic pump.
3. Describe controlled release drug delivery systems with examples.
4. Describe development, advantages and disadvantages of IUDs.

SECTION C (Attempt any FIVE – 5 × 7 = 35)

1. Explain approaches for designing controlled release formulations.
2. Describe targeted drug delivery systems and approaches.
3. Explain gastro-retentive drug delivery systems.
4. Explain methods to overcome ocular barriers.
5. Describe transdermal drug delivery systems – components & mechanism.
6. Explain pulmonary drug delivery systems.
7. Describe polymers – classification and applications.

■ QUESTION FREQUENCY ANALYSIS (2019–2025)

Topic	Times Asked	Weight
Controlled Release DDS	6 / 7	■■■■■
Transdermal Drug Delivery	6 / 7	■■■■■
Targeted Drug Delivery	5 / 7	■■■■
Osmotic Pump / Implants	5 / 7	■■■■
Liposomes / Niosomes	5 / 7	■■■■
Gastro-retentive DDS	4 / 7	■■■
Pulmonary DDS	4 / 7	■■■
IUDs	4 / 7	■■■
Ocular Drug Delivery	4 / 7	■■■