

B PHARM
(SEM VII) THEORY EXAMINATION 2022-23
NOVEL DRUG DELIVERY SYSTEM (NDDS)

Time: 3 Hours

Total Marks: 75

Note: 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 the term Microencapsulation and Microcapsules.
 - (b) Explain the functions of the various structural components of Liposomes.
 - (c) Mention the applications of Monoclonal antibodies on targeted drug delivery.
 - (d) Define the term 'permeation enhancers' with examples.
 - (e) Mention basic components of Transdermal drug delivery systems.
 - (f) Explain Spray drying/spray congealing method.
 - (g) Mention the advantages and disadvantages of Buccal drug delivery system.
 - (h) Define Niosomes and Nanoparticles.
 - (i) Define Hydrodynamic pressure activate DDS.
 - (j) Mention different factors affecting transmucosal permeability.

SECTION B

- 2. Attempt any two parts of the following: 2 x 10 = 20**
- (a) Explain the Different formulation approaches of Transdermal Drug Delivery Systems.
 - (b) Discuss implantable drug delivery system and explain in detail osmotic pump.
 - (c) Describe the various approaches for designing controlled release formulations.

SECTION C

- 3. Attempt any five parts of the following: 5 x 7 = 35**
- (a) Explain in brief the various methods to overcome ocular barriers for effective drug delivery.
 - (b) Discuss the Development and applications of IUDs in pharmaceutical drug delivery.
 - (c) Mention the various formulation approaches for gastro-retentive drug delivery systems. Discuss any one method.
 - (d) Define targeted drug delivery system and explain the various drug targeting approaches.
 - (e) Discuss briefly Nebulizer and Metered dose Inhalers.
 - (f) Define and classify polymers and explain applications of polymers.
 - (g) Explain the significance and limitations of naso-pulmonary drug delivery systems.