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MPHARM
(SEM II) THEORY EXAMINATION 2021-22
MOLECULAR PHARMACEUTICS (NANO TECH & TARGETED DDS)

Time: 3 Hours**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 and classify targeted drug delivery
b.	Define DPI and MDI.
c.	Differentiate between niosomes and liposomes
d.	Define microspheres. What are the various types of microspheres?
e.	Define hybridoma technology.
f.	Define propellant with examples.
g.	Define Gene expression.
h.	Define dual targeting.
i.	Define Electrosome and Phytosomes
j.	Enumerate different approaches for drug targeting.

SECTION B**2. Attempt any two parts of the following:****2 x 10 = 20**

a.	Discuss different formulation methods and evaluation of Nanoparticle?
b.	Define ex-vivo & in-vivo gene therapy. Write in detail about the concepts of Gene Therapy.
c.	Explain the different approaches for Tumor targeting.

SECTION C**3. Attempt any five parts of the following:****7 x 5 = 35**

a.	Discuss different methods used for the preparation of Liposomes?
b.	Enumerate development and application of Monoclonal antibodies?
c.	Write a note on aptamer-based drug delivery system and write its application?
d.	Describe Air suspension and Spray drying methods for microencapsulation.
e.	Explain in brief with example the role of receptors and ligands in targeted drug delivery.
f.	Explain Blood-Brain Barrier? Explain different approaches for Brain targeting.
g.	Explain formulation and evaluation of Aerosols?