Roll No: | | | | | | | | | | |

MPHARM
(SEM I) THEORY EXAMINATION 2021-22
DRUG DELIVERY SYSTEM

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. Give the limitations of buccal drug delivery systems.
b. Summarize the classification of rate controlled drug delivery systems.
c. Interpret the components in transdermal drug delivery systems.
d. Explain 'Telepharmacy' and 'Telemedicine'.
e. Summarize difference between Controlled release drug delivery systems and sustained release drug delivery systems.
f. Express advantages, disadvantages of Buccal drug delivery system.
g. Explain on Pharmacogenetics and Bioelectronic medicines.
h. Give limitations and applications of protein and peptides Drug Delivery.
i. ~~Explain on Pharmacogenetics and Bioelectronic medicines.~~
j. Outline the advantages of Gastro retentive drug delivery system.

? Should we read at .. classify polymers on functional basis

SECTION B

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

a. Express in detail different approaches used to develop Transdermal drug delivery system.
b. Explain the different approaches for Effervescent Gastro Retentive Drug Delivery Systems.
c. Demonstrate Feedback regulated drug delivery systems? Explain pH and Osmotic Pressure Activated drug delivery systems.

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SECTION C

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

a. Explain the role of the various barriers of protein drug delivery and state how to overcome them.
b. Explain the barriers of drug permeation in Ocular drug delivery systems and explain formulation approaches to Ocular drug delivery.
c. Explore Formulatron of Vaccine delivery systems and Describe Single shot vaccine.
d. Discuss in detail classification of polymers and explain biodegradable and natural polymers.
e. Express the Mechanism of drug permeation through Buccal drug delivery systems. Explain different theories of Muco adhesion drug delivery systems.
f. Discuss the significance of 3D printing of pharmaceuticals.
g. Explain in detail the evaluation of Transdermal drug delivery system.

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