

SVKM'S NMIMS

Shobhaben Pratapbhai Patel / School of Pharmacy & Technology Management

Programme: M.Pharm (Pharmaceutics)

Year: I

Semester: I

Academic Year: 2019-20

Batch: 2018-2019

Marks: 75

Subject: Drug Delivery Systems

Time: 10.00 am to 1.00 pm

Date: 11 December 2019

Duration: 3 Hrs

No. of Pages : 01

**RE EXAMINATION**

Instructions: Candidates should read carefully the instructions printed on the question paper and on the cover of the Answer Book, which is provided for their use.

- 1) Question No. 1 is compulsory.
- 2) Out of remaining questions attempt any 4 questions.
- 3) In all 5 questions to be attempted.
- 4) All questions carry equal marks.
- 5) Answer to each new question to be started on a fresh page.
- 6) Figures in brackets on the right hand side indicate full marks.
- 7) Assume suitable data if necessary.

**Section A**

Q. 1.	Answer all of the following	3 X 5 = 15
A	Explain modes of adhesion failure in transdermal drug delivery systems.	
B	Explain gastrointestinal dynamics.	
C	How drugs administered by ocular route get absorbed?	
D	Enlist factors influencing design & performance of CRDDS.	
E	Enlist the challenges associated with protein drugs.	
<b>Section B</b>		
Q. 2. A	Explain formulation considerations for protein drug delivery systems.	7 Marks
Q. 2. B	Discuss the polymers used in CRDDS.	8 Marks
Q. 3. A	Explain evaluation of sustained release dosage forms.	8 Marks
Q. 3. B	How will you evaluate gastro retentive delivery systems?	7 Marks
Q. 4. A	Explain approaches to formulate transdermal patches.	8 Marks
Q. 4. B	How will you evaluate ocular delivery systems?	7 Marks
Q. 5. A	Discuss chemical permeation enhancers used in TDDS.	7 Marks
Q. 5. B	Discuss feedback regulated drug delivery system.	8 Marks
Q. 6. A	Enlist adjuvants with examples used in vaccine delivery. Explain their role in Vaccine drug delivery.	7 Marks
Q. 6. B	Discuss different ocular inserts.	8 Marks
Q. 7	Write short notes on- Any THREE i) 3D printing in pharmacy ii) Concept of personalised medicine iii) Degradation of polymers iv) Telepharmacy	5 X 3 = 15