

Code No: B134203

R13

SET - 1

IV B. Pharmacy II Semester Regular Examinations, April/May - 2017
CONTROLLED RELEASE AND NOVEL DRUG DELIVERY SYSTEMS

Time: 3 hours

Max. Marks: 70

- Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)
2. Answering the question in **Part-A** is Compulsory
3. Answer any **THREE** Questions from **Part-B**

PART -A

1. a) Give the differences between controlled and sustained release formulations. (3M)
- b) Write the principle and advantages of osmotic drug delivery systems. (4M)
- c) Write about the role of permeation enhancers in transdermal drug delivery systems with suitable examples. (4M)
- d) Write about the qualities of mucoadhesive polymers. (3M)
- e) Mention the need of targeting and give the classification of different types of targeting. (4M)
- f) What are hydrogels? Mention the applications of hydrogels. (4M)

PART -B

2. a) Write about factors influencing the design of controlled release formulations. (6M)
- b) Explain the design and evaluation of controlled release formulations with suitable example. (10M)
3. a) Explain the mechanisms of drug release from controlled release dosage forms and how they are established. (8M)
- b) What are altered density systems? Mention their advantages. Explain the principle in the design of these systems. (8M)
4. Enumerate the characteristics of drug to be formulated as TDDS. Discuss the different methods of formulating and evaluation of Transdermal Drug Delivery Systems. (16M)
5. a) Explain the theories of mucoadhesion. (8M)
- b) Write about the evaluation tests meant for mucoadhesive systems. (8M)
6. Write the principle advantages and disadvantages, methods of preparation and application of liposomal drug delivery systems (16M)
7. a) Give the classification of polymers based on their structure with suitable examples. (8M)
- b) Write about biodegradable polymers and their applications. (8M)