

Total No. of Questions : 6]

SEAT No. :

P3182

[Total No. of Pages : 3

[5245]- 801

Fourth Year B. Pharmacy (Semester - VIII)

4.8.1 : ADVANCED DRUG DELIVERY SYSTEM

(2013 Pattern)

Time : 3 Hours]

[Max. Marks :70

Instructions to the candidates:

- 1) *All questions are compulsory.*
- 2) *Answers to the two sections should be written in separate answer books.*
- 3) *Neat labeled diagrams must be drawn wherever necessary.*
- 4) *Figures to the right indicate full marks.*

SECTION - I

Q1) Describe concept of modified drug release, Prerequisites of drug candidates, explain diffusion based controlled drug delivery system **[10]**

OR

Explain formulation development and evaluation of colon targeted drug delivery system in detail.

Q2) Answer the following (Any Five) : **[15]**

- a) Give an account on intrauterine drug delivery system
- b) What are prebiotics write applications of prebiotics
- c) What are liposomes give its types
- d) Write on dose calculation for controlled drug delivery system
- e) Write on classification of polymers
- f) What are current related factors in iontophoresis
- g) Factors affecting sonophoretic drug delivery system

P.T.O

Q3) Write short note on (Any Two) : **[10]**

- a) Ophthalmic inserts
- b) Penetration enhancers
- c) Mucosal drug delivery system
- d) Parenteral implants

SECTION - II

Q4) Describe pharmaceutical aerosols and type of Aerosol systems. **[10]**

OR

What is mean by Mechanical encapsulation of Microencapsulation? Explain Spheronization technique in detail.

Q5) Answer the following (Any Five) : **[15]**

- a) Applications of Microencapsulation
- b) Advantages and Disadvantages of Aerosols
- c) Types of propellants used in Aerosols
- d) Explain *in-situ* polymerization technique of Microencapsulation
- e) What is the use of optimization technique in Pharmaceutical Industry
- f) Describe fundamental concept of Microencapsulation
- g) Enlist the Microencapsulation methods

Q6) Write Short note on (Any Two) :

[10]

- a) Explain two level factorial design
- b) Explain fluidized bed coater method of Microencapsulation
- c) Write on Manufacturing of Pharmaceutical Aerosols
- d) Write on Foam system of Aerosols

