

Total No. of Questions :6]

SEAT No. :

[Total No. of Pages :2

P2010

[5145] - 801

Fourth Year B. Pharmacy

4.8.1: ADVANCED DRUG DELIVERY SYSTEM

(2013 Pattern) (Semester - VIII)

Time : 3 Hours]

[Max. Marks :70

Instructions to the candidates:

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

SECTION -I

Q1) Differentiate between controlled release and sustain release drug delivery system, Prerequisites of drug candidates, explain dissolution based controlled drug delivery system. **[10]**

OR

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

Q2) Answer the following (Any 5): **[15]**

- a) Give merits and demerits of gastroretentive drug delivery system.
- b) What are probiotics write applications of probiotics.
- c) Write on formulation method of liposomes.
- d) Write on dose calculation for controlled drug delivery system.
- e) Write on parenteral implants.
- f) Write about osmotic pump.
- g) Factors affecting sonophoretic drug delivery system.

P.T.O.

Q3) Write short note on (Any 2): **[10]**

- a) IUDs
- b) Penetration enhancers.
- c) Liposomes.
- d) Iontophoresis.

SECTION -II

Q4) What is mean by microencapsulation? Explain how chemical encapsulation occurs by coacervation method. **[10]**

OR

Explain Aerosols Component and factors affecting its selection.

Q5) Answer the following (Any 5): **[15]**

- a) Advantages of intranasal Aerosols.
- b) Advantages and disadvantages of meter dose inhalers.
- c) Explain the concept Optimization.
- d) Describe fundamental concept of Aerosols.
- e) Enlist the polymers used in different methods of microencapsulation.
- f) Enlist the components of Aerosols.
- g) Explain Factorial Design.

Q6) Write short note on (Any 2): **[10]**

- a) Describe polymer - polymer incompatibility method of Microencapsulation.
- b) Quality Control tesst of Aerosols.
- c) How to evaluate Microencapsulation.
- d) Describe valve assembly of Aerosols.

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