

2021

Time :As in Programme

Full Marks : 75

The figures in the right-hand margin indicate marks.

*Answer **all** questions.*

1. Answer all questions. [10x2=20]
- a) Define Bio adhesive and Mucoadhesive drug delivery system.
 - b) Justify how liposomes can deliver hydrophobic and hydrophilic drug simultaneously.
 - c) Define the term opsonization.
 - d) Define inverse targeting.
 - e) Enlist names of carriers in targeted drug delivery system.
 - f) Make a list of factors responsible for pre corneal drug loss.
 - g) What is an IUD? Give two examples of marketed IUD.
 - h) Define transdermal drug delivery system.
 - i) Classify gastro retentive drug delivery systems.

(Turn Over)

j) What is a biodegradable polymer? Give two examples of it.

2. Answer any two questions. [2x10=20]

- a) Describe the structure, advantage, disadvantage and applications of liposome. Describe any two methods of preparation of liposome by passive loading technique.
- b) Describe the physicochemical factors to be taken in to consideration while formulating controlled released formulation.
- c) Describe the basic components of a transdermal drug delivery systems.

3. Answer any seven questions. [7 x 5 = 35]

- a) Write short notes on Ocuserts.
- b) Describe the advantage, disadvantages of implantable drug delivery system. Describe the working of Alzet pumps.
- c) Define microencapsulation. What are the advantages and use of microcapsules? Mention how they can be classified.
- d) How microencapsulation can be done by spray congealing and multi orifice centrifugation method.
- e) Write a short note on mucoadhesive polymers.
- f) Discuss about the various ocular barriers for affecting drug delivery to eye.

(Contd.)

- g) With suitable diagram discuss the working of a diffusion controlled and dissolution controlled system.
- h) Write a short note on contact lenses.
- i) Classify IUDs, describe the structure function, advantage, disadvantage and application of any one.
- j) Describe the basic components of a targeted drug delivery system.

