

(A-102)

SARDAR PATEL UNIVERSITY

M. Sc. Pharmaceutical Chemistry (Semester-IV) Examination

Tuesday, 21/04/2015; Time-2:30 PM to 5:30 PM

SUBJECT CODE: PS04CPCH01

SUBJECT TITLE: Advances in Pharmaceutical Technology and Drug Delivery systems

Maximum Marks: 70

Note: (1) All questions are compulsory.

(2) Figure to right indicates total marks of question.

Q-1 Choose the correct option for the following: 1 × 8

1. The substance increases the rate of disintegration
  - a. Retardants
  - b. Super retardant
  - c. Super disintegrant
  - d. None
2. Small dime sized discs prepared by biodegradable polymer to put at the surgical cavity is known as:
  - a. Ointment
  - b. Gliadel wafer
  - c. Cotton patch
  - d. None
3. Release of a constituent from the plastic material of the container into the formulation is known as:
  - a. Leaching
  - b. Sorption
  - c. Permeation
  - d. None
4. Compressed air is used in
  - a. Electric controller
  - b. Pneumatic controller
  - c. Magnetic controller
  - d. None
5. Which of the following is an example of natural polymer.
  - a. PLA
  - b. Chitosan
  - c. Polyacrylate
  - d. Polyethylene
6. Sodium alginate is an example of:
  - a. Hydrocolloid
  - b. Complex
  - c. Both a and b
  - d. None of the above
7. Neutral charge of surface is suitable for:
  - a. CDDS
  - b. TDDS
  - c. Targeted drug delivery
  - d. Ocular drug delivery
8. The goal of targeted drug delivery is to:
  - a. Prolong
  - b. Target
  - c. Localize
  - d. All of the above

Q-2 Answer the following (Any Seven). 2 × 7

1. Define Polymeric/mixed micelles.
2. Describe Durasolv Technology.
3. Give the characteristic of polypropylene.
4. Describe the limitation of plastic packing material.
5. Give the role of Manufacturing Execution System.
6. Enlist the advantages of controlled release products.
7. Give the examples of water soluble synthetic polymers.
8. What is meant by magic bullet approach for targeted drug delivery?
9. Enlist properties of drug required for transdermal drug delivery.

- Q-3** A. Describe the techniques for preparing Fast Dissolving Tablets. 6  
B. What is Solid Lipid Nanoparticles? Give the application of Lipid Nanoparticles for Parenteral Drug Delivery. 6
- OR**
- B. Write a note on the role of micro-particle in drug delivery system. 6
- Q-4** A. Write a note on process automation. 6  
B. Give details of glass as the packaging material. 6
- OR**
- B. What are the criteria for the selection of materials for pharmaceutical packaging? 6
- Q-5** A. Describe various factors to consider in the design of oral drug delivery system. 6  
B. Write note on Xanthan gum. 6
- OR**
- B. Write note on poly lactic- co-glycolic acid and give its applications. 6
- Q-6** A. Write note on niosomes. 6  
B. Write note on matrix diffusion- controlled and micro reservoir transdermal drug delivery systems. 6
- OR**
- B. Describe animal and human models for in-vivo evaluation of transdermal drug delivery systems. 6
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