

SEAT No. \_\_\_\_\_

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124

SARDAR PATEL UNIVERSITY

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

Monday, 09/04/2018; Time-2:00 PM to 5:00 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. Niosomal encapsulation enhances:
  - a. Drug delivery
  - b. Ranbaxy
  - c. Prographarm Laboratories
  - d. Torrent Pharma
2. Compressed air is used in
  - a. Electric controller
  - b. Drug toxicity
  - c. A & B both true
  - d. None
3. Release of a constituent from the plastic material of the container into the Formulation is known as:
  - a. Seeping
  - b. Sorption
  - c. Permeation
  - d. Leaching
4. Which of the following materials are used in pharmaceutical packaging?
  - a. Glass
  - b. Plastic
  - c. Metal
  - d. All the above
5. Chitosan is the \_\_\_ derivative of chitin
  - a. Hydrolyzed
  - b. Alcoholyzed
  - c. Hydrazinolyzed
  - d. None
6. Guar gum is
  - a. Non ionic
  - b. Anionic
  - c. Cationic
  - d. None
7. Which type of surface charge have long circulating time in blood
  - a. Positive
  - b. Negative
  - c. Neutral
  - d. None of above
8. The ability of a polymer to adhere a substance with contact pressure is:
  - a. Peel adhesion
  - b. Cohesion
  - c. Tack properties
  - d. None

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

1. Describe the mechanism and application of Duro's Infusion Implant.
2. What are the criteria for fast dissolving tablets?
3. Give the preparation of Nano-suspension.
4. Give the role of manufacturing execution system.
5. What is the purpose of packaging?
6. What is the advantage of reservoir DDS?

7. What is meant by magic bullet approach for targeted drug delivery?
8. Enlist cellulose based polymers.
9. What is third order targeting?
- Q-3 A. Write a note on important technologies for fast dissolving tablets with suitable example. 6
- B. Discuss the Zydis and Orasolv technology for fast dissolving tablets with its limitations, advantages and disadvantages. 6
- OR
- B. Discuss the evaluation of fast dissolving tablets. 6
- Q-4 A. Describe criteria for the selection of package type and package material. Give the required consideration of closures. 6
- B. Describe the approach to understand the process in pharmaceutical industry and elaborate the ERP process flow. 6
- OR
- B. Write a note on Glass as packaging materials for pharmaceuticals dosage form. 6
- Q-5 A. Elaborate the design and fabrication of oral controlled drug delivery system. 6
- B. Write a note poly lactic-co-glycolic acid and also give its application. 6
- OR
- B. Describe various factors to consider in the design of oral drug delivery system. 6
- Q-6 A. Write note on passive targeting. 6
- B. Write a note on niosomes. 6
- OR
- B. Write note on matrix diffusion-controlled and micro reservoir transdermal drug delivery systems. 6

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