NRT/KS/19/3185

B.Pharm. (Eighth Semester) (C.B.S.) Examination

PHARMACEUTICS (DFT—II) (NDDS)

Paper—1

Time : Three Hours] [Maximum Marks : 80

N.B. :— (1) Question No. **1** is compulsory.

(2) Attempt any ***four*** questions out of remaining.

(3) All questions carry marks as indicated.

(4) Draw neat labelled diagram wherever necessary.

1. Solve any ***five*** of the following :
   (a) Give the rationale of transdermal drug delivery.
   (b) Give the significance of penetration enhancers in transdermal drug delivery system.
   (c) Give the major routes of parenteral administration.
   (d) Give the polymer properties that influence permeation of drug through drug delivery system.
   (e) Write the concept of ion exchange controlled gastrointestinal drug delivery system.
   (f) What are vesicular systems ? Write in short their role in ocular controlled drug delivery system.
   (g) Describe in brief GI anatomy and dynamics. 4×5=20
2. Explain in detail the effect of physicochemical properties of drug on drug product design and its performance. 15
3. (a) Discuss in detail the following system for ocular drug delivery :
      (i) Collagen shield
      (ii) Pseudolatices. 8
   (b) Describe in brief osmotic pressure controlled gastrointestinal drug delivery system. 7
4. (a) Explain in brief matrix dispersion type and adhesive diffusion type transdermal drug delivery systems. 8
   (b) Explain in detail hydrodynamically balanced intragastric delivery system. 7
5. Explain the following carrier targeted parenteral controlled drug delivery system :
   (i) Monoclonal antibodies
   (ii) Lipoproteins
   (iii) Polymeric micelles. 15
6. (a) Explain in detail membrane permeation controlled gastrointestinal drug delivery systems. 8
   (b) Explain in detail intrarumen controlled drug delivery system. 7
7. Write short notes on (any ***three***) :
   (a) Mucoadhesive gastrointestinal drug delivery system.
   (b) Membrane moderated transdermal drug delivery system.
   (c) Resealed erythrocytes as a parenteral controlled drug delivery system.
   (d) Passive drug targeting. 5×3=15