Total number of printed pages – 4 **B. Pharm**

PH. 8.1

Eighth Semester Examination – 2008

PHARMACEUTICS – VII

(Formulation Design and Drug Delivery Systems)

Full Marks – 70

Time : 3 Hours

*Answer Question No. **1** which is compulsory and any **five** from the rest.*

The figures in the right-hand margin indicate marks.

1. Answer the following questions : 2 ×10

   (i) What are the approaches can be utilized to overcome the bad taste of drug ? Give examples.

   (ii) What are the conditions catalyse the hydrolytic breakdown ?

   (iii) How dielectric constant of the drug influences bioavailability ?

   (iv) Write the choice of solvent in designing of liquid oral dosage form.

   (v) Write the ingredients of a typical antibacterial ointment with use.

   (vi) Write the main points of bioavailability testing protocol.

   (vii) What are the experimental designs of statistical treatment for assessment of bioavailability ?

   (viii) Graphically show the interpretation of drug dissolution data.

   (ix) Schematically represent the rate-limiting step in the design of controlled drug delivery system.

(x) What are the methods of measurement of bioavailability ?

2. Define prodrug. What are the various applications of prodrug ? How are poorly soluble drugs containing hydroxyl function converted into hydrophilic prodrugs. Give example. 10

3. How the physical form and particle shape affect the formulation stability and bioavailability of the drug ? 10

4. Write briefly about the formulation and design of a liquid antacid product. 10

5. Write main salient points about stabilization of pharmaceutical products with example. 10

6. Describe shortly about accelerated stability testing protocol. 10

7. Describe plasma level-time study as an in-vivo method of evaluation of bioavailability. 10

8. Mention at least five main controlled drug delivery systems with example and describe production of one delivery system. 10

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