

**UNIVERSITY OF JAFFNA, SRI LANKA**  
**B.PHARM FOURTH YEAR SECOND SEMESTER EXAMINATION–JANUARY 2013**  
**PHARMACEUTICS V - PHACE4202 (OLD SYLLABUS)**

**Paper II**

**Date: 10.01.2013**

**Time: 02 hours**

**ANSWER ALL THE EIGHT QUESTIONS**



1.
  - 1.1. Define the following.
    - 1.1.1 Relative bioavailability. (10 Marks)
    - 1.1.2 Pharmaceutical equivalents. (10 Marks)
    - 1.1.3 Volume of distribution. (10 Marks)
    - 1.1.4 Bioequivalence. (10 Marks)
  - 1.2. Briefly describe the factors that affect the oral absorption of drugs. (60 Marks)
  
2.
  - 2.1. List different mechanisms for transport of drugs across biological membranes. (30 Marks)
  - 2.2. What is drug clearance? (10 Marks)
  - 2.3. Explain the chemical factors that affect the hepatic biotransformation of drugs. (60 Marks)
  
3.
  - 3.1. List 06 advantages of controlled release dosage forms over conventional dosage forms. (30 Marks)
  - 3.2. List 05 activation modulated drug delivery systems by physical means. (20 Marks)
  - 3.3. Briefly explain the mechanism of the activation modulated drug delivery systems mentioned in 3.2. (50 Marks)
  
4.
  - 4.1. List 05 advantages of transdermal drug delivery system. (20 Marks)
  - 4.2. List the biological properties of drugs that are suitable for transdermal drug delivery. (20 Marks)
  - 4.3. Explain the components of the transdermal patches. (60 Marks)
  
5.
  - 5.1. Define “targeted drug delivery system”. (20 Marks)
  - 5.2. Explain the advantages of targeted drug delivery systems. (20 Marks)
  - 5.2. Describe different types of targeted drug delivery systems. (60 Marks)
  
6. Write an account on
  - 6.1. various methods used in the preparation of microspheres. (60 Marks)
  - 6.2. uses of pharmacokinetic models. (40 Marks)
  
7.
  - 7.1. Explain with examples about the hydrolytic degradation of drugs. (40 Marks)
  - 7.2. How hydrolytic degradation of drugs can be prevented? (60 Marks)
  
8. Discuss the influence of packaging components on dosage form stability. (100 Marks)