

**UNIVERSITY OF JAFFNA**  
**BACHELOR OF PHARMACY**  
**FOURTH YEAR SECOND SEMESTER EXAMINATION – SEPTEMBER 2018**  
**PHAAP 4214 ADVANCED PHARMACEUTICS – PAPER II**

Date: 17.09.2018.

Time: 02 Hours

**Answer All Six Questions.**

1. Describe the different
  - 1.1 factors that affect the hepatic clearance of drugs. (50 Marks)
  - 1.2 methods that can be used to improve solubility of drugs. (50 Marks)
  
2.
  - 2.1 Explain the role of following in the metabolism of drugs.
    - 2.1.1 Microsomal enzymes (30 Marks)
    - 2.1.2 Conjugation reactions (30 Marks)
  - 2.2
    - 2.2.1 What is meant by ‘pharmacokinetic compartment model’? (10 Marks)
    - 2.2.2 Enumerate the conditions under which one compartment model is applicable. (30 Marks)
  
3. Describe the
  - 3.1 different types of synthetic detergents used in the shampoo formulations. (40 Marks)
  - 3.2 functions of different formulation additives used in the tooth paste formulations. (60 Marks)
  
4.
  - 4.1 Explain the importance of thermal analysis in the preformulation studies. (30 Marks)
  - 4.2 Describe the different methods that are used to prevent chemical degradation of drugs. (70 Marks)
  
5. Define and explain the role of following in pharmaceutical manufacturing.
  - 5.1 Pilot plant scale up (40 Marks)
  - 5.2 Pharmaceutical validation (30 Marks)
  - 5.3 Stability testing (30 Marks)
  
6. Write an account on following.
  - 6.1 Biliary excretion of drugs (40 Marks)
  - 6.2 Good Manufacturing Practice guidelines for “production and process control” (60 Marks)

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