



**UNIVERSITY OF JAFFNA, SRI LANKA**  
**BACHELOR OF PHARMACY**  
**FOURTH YEAR SECOND SEMESTER EXAMINATION — AUGUST 2017**  
**PHAAP 4201 ADVANCED PHARMACEUTICS IV — PAPER H**

**Date: 16.08.2017****Time: 02 Hours**

1.
  - 1.1. Explain how following factors that affect the oral absorption of drugs.
    - 1.1.1. Gastric emptying time (40 marks)
    - 1.1.2. Liphophilicity (30 marks)
  - 1.2. What is pH partition theory? (10 marks)
  - 1.3. Briefly explain the limitations of pH partition theory. (20 marks)
2.
  - 2.1. Describe the different types of hair conditioning agents. (30 marks)
  - 2.2. Give the advantages and disadvantages of soaps over surfactants in shampoo formulations. (20 marks)
  - 2.3. List the ingredients of lipstick formulations and their uses. (30 marks)
  - 2.4. Briefly explain the function of fluoride compounds that are used in the dentifrices. (20 marks)
3.
  - 3.1.
    - 3.1.1. What is preformulation? (10 marks)
    - 3.1.2. List the application of preformulation studies. (20 marks)
  - 3.2. Briefly explain how hydrolytic decomposition of drugs can be prevented? (30 marks)
  - 3.3. Briefly describe the constituents and their importance in the glasses that are used as pharmaceutical packages. (40 marks)
4.
  - 4.1. What is pilot plant scale up technique? (10 marks)
  - 4.2. Give the importance of pilot plant scale up techniques. (30 marks)
  - 4.3. Briefly explain the different steps involved in the pilot plant scale up techniques. (60 marks)





- 5.
- 5.1. Define the following terms.
    - 5.1.1. Quality assurance (10 marks)
    - 5.1.2. Quality control (10 marks)
    - 5.1.3. Good manufacturing practice (10 marks)
  - 5.2. List the different functions of quality assurance department in the pharmaceutical industry. (30 marks)
  - 5.3. Briefly describe the good manufacturing practice that are followed in the production and process control. (40 marks)
6. Write an account on
- 6.1. glutathione conjugation. (40 marks)
  - 6.2. biliary excretion of drugs. (60 marks)

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