

**UNIVERSITY OF JAFFNA, SRI LANKA**  
**BACHELOR OF PHARMACY**  
**THIRD YEAR FIRST SEMESTER EXAMINATION – AUGUST 2017**  
**PHACE 3134      PHARMACEUTICS IV – PAPER II**

**Date: 24.08.2017**

**Time: 02 Hours**

**ANSWER ALL EIGHT QUESTIONS.**

1.
  - 1.1 Describe the steps involve in the wet granulation method in tablet manufacturing. (60 marks)
  - 1.2 List the advantages and disadvantages of the wet granulation method. (40 marks)
2.
  - 2.1 Explain the role of lubricants in
    - 2.1.1 manufacture of tablets. (25 marks)
    - 2.1.2 disintegration of tablets. (15 marks)
  - 2.2 Describe independent methods for the filling of hard gelatin capsules (40 marks)
  - 2.3 List the film defects that occur in film coated tablets. (20 marks)
3.
  - 3.1 List different formulation additives that are used in the preparation of coating materials for microencapsules. (15 marks)
  - 3.2 Describe the functions with examples for formulation additives that are mentioned in the 3.1. (60 marks)
  - 3.3 Explain how base adsorption is determined for softgels formulation. (25 marks)
4. Write an account on
  - 4.1 different types of preservatives that are used in ophthalmic preparations. (40 marks)
  - 4.2 methods that are used for detection of pyrogens in parenterals. (60 marks)
5.
  - 5.1 Enumerate the uses of different types of additives that are used in the parenteral formulations. (40 marks)
  - 5.2 Explain the approaches that are used for sustained delivery of parenterals. (60 marks)
6. Describe the
  - 6.1 drug formulation and drug delivery of Dry Powder Inhaler (DPI). (40 marks)
  - 6.2 liquefied gas propellants that are used in aerosol formulations. (60 marks)

7.

7.1 Explain how

7.1.1 paclitaxel can be effectively delivered into tumours from albumin nanoparticles. (30 marks)

7.1.2 poly ethylene glycol (PEG) coating of nanocarriers can reduce its clearance from the body. (30 marks)

7.2 Enumerate the properties of drugs that can be used for transdermal patches. (40 marks)

8. Write an account on

8.1 pH independent drug delivery system. (30 marks)

8.2 ion activated drug delivery system. (40 marks)

8.3 hydrodynamic pressure-activated drug delivery systems. (30 marks)

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