

**UNIVERSITY OF JAFFNA, SRI LANKA**  
**FACULTY OF ALLIED HEALTH SCIENCES**  
**THIRD YEAR FIRST SEMESTER EXAMINATION IN BPharmHons - 2020**  
**PHACE 3134 PHARMACEUTICS IV**  
**PART II**

Date: 30.05.2022

Time: 02 Hours

Answer all eight questions.

1. 1.1 Discuss the advantages and disadvantages of tablets. (50 Marks)  
1.2 1.2.1 What is enteric coated tablet? (20 Marks)  
1.2.2 What are the characters of drugs which need enteric coating? (15 Marks)  
1.2.3 List the polymers used in enteric coated tablet. (15 Marks)
2. 2.1 Write the rationale for granulation in the manufacturing of tablets. (25 Marks)  
2.2 Name the methods used to produce dry granules. (10 Marks)  
2.3 Briefly describe the methods mentioned in 2.2. (65 Marks)
3. 3.1 Name the types of plug forming mechanisms involved in the filling of hard gelatin capsules. (10 Marks)  
3.2 Briefly explain any one (01) of the mechanisms mentioned in 3.1. (45 Marks)  
3.3 Briefly describe different methods used for the sealing of hard gelatin capsules. (45 Marks)
4. 4.1 Name two (02) compressed gas propellants used in aerosol formulation. (10 Marks)  
4.2 Briefly discuss the function of liquefied and compressed gas propellants. (30 Marks)  
4.3 Explain the effect of particle size on aerosol deposition mechanism. (60 Marks)
5. 5.1 List the requirements of parenteral solutions. (15 Marks)  
5.2 State the advantages and disadvantages of parenteral drug delivery systems. (40 Marks)  
5.3 Write a short note on protectants used in parenteral formulations. (45 Marks)
6. 6.1 List the characteristics of polymers used in transdermal patches. (30 Marks)  
6.2 List and give the function of different components of transdermal patches. (20 Marks)  
6.3 Briefly explain the advantages and disadvantages of mucoadhesive drug delivery. (50 Marks)
7. 7.1 Explain how the following drug factors affect sustained drug delivery. (15 Marks)  
7.1.1 Protein binding. (15 Marks)  
7.1.2 Biological half-life. (10 Marks)  
7.2 Name two (02) techniques used in floating drug delivery system. (60 Marks)  
7.3 Briefly explain the techniques mentioned in 7.2. (10 Marks)
8. 8.1 List the applications of microencapsulation technology in the drug development. (40 Marks)  
8.2 Explain the coacervation-phase separation technique used in the preparation of microencapsules. (60 Marks)