

UNIVERSITY OF JAFFNA, SRI LANKA
BACHELOR OF PHARMACY
SECOND YEAR SECOND SEMESTER EXAMINATION – MARCH 2019
PHACE 2234 PHARMACEUTICS III – PAPER II

Date: 23.03.2019

Time: 02 Hours

Answer all eight questions

1. Explain the
 - 1.1 dissolution of solid particles based on Noyes-whitney equation. (40 marks)
 - 1.2 pH partition principle for drug transport through gastrointestinal membrane. (60 marks)
2.
 - 2.1 What is “hydrophilic colloid”? (10 marks)
 - 2.2 Explain how the stability of hydrophilic colloids could be affected? (45 marks)
 - 2.3 Describe the pharmaceutical application of colloids. (45 marks)
3. Explain
 - 3.1 how the optimum stability in pharmaceutical suspension could be achieved? (40 marks)
 - 3.2 the different types of interfacial films that stabilize the emulsions. (60 marks)
4.
 - 4.1 What is thixotropy? (10marks)
 - 4.2 Describe the mechanism of thixotropy. (40 marks)
 - 4.3 Explain the importance of rheology in emulsions. (50 marks)
5.
 - 5.1 What is spreading coefficient? (10 marks)
 - 5.2 Explain the importance of spreading coefficient in topical preparations.(30 marks)
 - 5.3 Describe the electric properties at the interface of colloidal particles. (60 marks)
6. Explain the
 - 6.1 effect of packing arrangement of powder on its porosity. (55 marks)
 - 6.2 factors that contribute to cohesion in powders. (45 marks)
7.
 - 7.1 Classify different types of complexes. (30 marks)
 - 7.2 Describe the accelerated stability testing of drugs. (70 marks)
8. Write an account on
 - 8.1 hydrogels. (50 marks)
 - 8.2 photolytic decomposition of drugs. (50 marks)