

**UNIVERSITY OF JAFFNA, SRILANKA****BACHELOR OF PHARMACY****THIRD YEAR FIRST SEMESTER EXAMINATION (Old syllabus) — July 2013****PHACE 3102 PHARMACEUTICS III - PAPER II****Date: 21.10.2013****Time: 02 Hours****ANSWER ALL EIGHT QUESTIONS.**

- 1.1 Explain the factors that affect dissolution rate of drugs. (60 marks)
- 1.2 Write note on steady state diffusion. (40 marks)
- 2.
- 2.1 What is a colloid? (10 marks)
- 2.2 Describe the different types of colloids. (60 marks)
- 2.3 List the applications of colloids in pharmaceutical products? (30 marks)
- 3.
- 3.1 List the properties of a suspension. (20 marks)
- 3.2 Briefly explain the role of interfacial properties in the stability of suspension. (80 marks)
4. Briefly describe the
- 4.1 different types of non Newtonian system with the help of graphs. (60 marks)
- 4.2 mechanism of thixotropy. (40 marks)
- 5.1 List the pharmaceutical application of interfacial phenomena. (20 marks)
- 5.2 Describe how the surface tension of a liquid can be measured by Du Noüy tensiometer? (40 marks)
- 5.3 List the pharmaceutical applications of surfactants. (40 marks)
- 6.
- 6.1 List the factors influencing the cohesion of powders? (15 marks)
- 6.2 How cohesion of powder can be determined using Jenike cell? (45 marks)
- 6.3 How can the flow property of powder be improved? (40 marks)
- 7.
- 7.1 Describe the structure and pharmaceutical uses of cyclodextrins. (60 marks)
- 7.2 Briefly explain the functions of Bentonite in Calamine lotion (40 marks)
8. Write an account on
- 8.1 prevention of oxidation of drugs. (30 marks)
- 8.2 preparation of gels. (40 marks)
- 8.3 significance of photochemistry in pharmacy. (30 marks)

