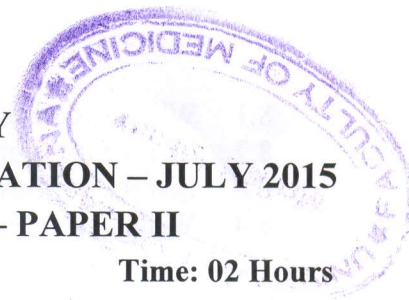


UNIVERSITY OF JAFFNA
BACHELOR OF PHARMACY
SECOND YEAR SECOND SEMESTER EXAMINATION – JULY 2015
PHACE 2202 PHARMACEUTICS III – PAPER II



Date: 15.07.2015.

Time: 02 Hours

ANSWER ALL EIGHT QUESTIONS

1.
 - 1.1 Briefly explain how colloidal particles acquire charges. (50 Marks)
 - 1.2 Describe the electrical double layer of colloidal particles. (50 Marks)

2.
 - 2.1 What is coarse dispersion? (10 Marks)
 - 2.2 Differentiate flocculated and deflocculated suspensions. (30 Marks)
 - 2.3 Describe
 - 2.3.1 the factors causing instability of emulsion. (30 Marks)
 - 2.3.2 how the above instabilities of emulsion can be prevented. (30 Marks)

3.
 - 3.1 List the factors that affect the dissolution rate of solids (20 Marks)
 - 3.2 Solubility of weak electrolytes is more in the optimum pH.
Explain with suitable derivation (50 Marks)
 - 3.3 Describe the dissolution of solid based on the Noyes Whitney's Equation (30 Marks)

4.
 - 4.1 What is thixotropy? (10 Marks)
 - 4.2 Describe the mechanism of thixotropy (30 Marks)
 - 4.3 Explain the applications of rheology in pharmacy (60 Marks)

5.
 - 5.1 What is surfactant? (10 Marks)
 - 5.2 Classify surfactants with examples (20 Marks)
 - 5.3 Explain the applications of following in pharmacy
 - 5.2.1 surfactants (30 Marks)
 - 5.2.2 adsorption (40 Marks)

6.
 - 6.1 List the factors responsible for the cohesion of powders? (30 Marks)
 - 6.2 Describe how cohesion can be quantified? (35 Marks)
 - 6.3 Explain how flow properties of powder can be improved? (35 Marks)

7.
 - 7.1 Based on the Arrhenius equation how shelf life of pharmaceuticals could be determined. (50 Marks)
 - 7.2 Briefly explain the theories of catalysis. (30 Marks)
 - 7.3 What is the significance of photochemistry in pharmacy (20 Marks)

8.

- 8.1 What is inclusion complex? (10 Marks)
- 8.2 List the different types of inclusion complexes. (20 Marks)
- 8.3 List the various methods used for the analysis of complexes. (20 Marks)
- 8.4 Write a note on cyclodextrin. (50 Marks)