

B. Pharm. (Second Semester)
EXAMINATION, June, 2011

(Grading/Non Grading)

PHARMACEUTICS – II

(Physical Pharmacy)

(PY – 202)

Time : Three Hours

Maximum Marks : 70

Note : Attempt any *five* questions. All questions carry equal marks. It is required to solve subparts of a question in continuation.

- 1 (a) What is Micromeritics ? How particle size is determined ? Explain any *one* method in detail. 7
(b) What do you understand by derived properties of powders ? Discuss the factors affecting flow properties of powders. 7
- 2 (a) Using proper illustration, discuss phase rule. 7
(b) Discuss factors affecting solubility of liquid in liquid. 7
- 3 (a) What is surface free energy ? Describe the methods of detecting surface tension. 7
(b) What is HLB ? Describe the HLB scale for surface active agents. 7

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4. (a) Write a note on Fick's laws of diffusion. 7
(b) What is Thixotropy ? How is it measured ? 7
- 5 (a) How does rheology differ from viscosity ? Give pharmaceutical application of Rheology. 7
(b) Explain the term "Buffer capacity". How is it calculated ? 7
6. (a) Discuss various approaches to adjustment of toxicity. Give its pharmaceutical applications. 7
(b) Write a note on ultrafiltration and dialysis. 7
7. Write short notes on any *two* of the following : 7 each
(a) Controlled flocculation
(b) Electrokinetic properties of colloids
(c) Optical properties of colloids
8. Discuss theories of emulsification. Discuss physical stability of suspensions and emulsions. 14