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PY-401

B.Pharm. IV Semester
Examination, June 2013
Pharmaceutics-IV
(Pharmaceutical Engineering-II)

Time : Three Hours

Maximum Marks : 70

Note: Attempt any five questions. All questions carry equal marks.

1. a) Discuss the laws governing the energy and power requirements of a size reduction mill.
   b) Draw a neat diagram of hammer mill. Explain its construction and working.

2. Enumerate the factors affecting the evaporation. Classify various evaporators. Discuss the construction, working, merits and demerits of film evaporators.

3. a) What are azeotropes? How are they separated? Explain with suitable examples.
   b) Describe in brief the Mccabe Thiele Method for calculating number of theoretical plates required for given distillation process.

4. a) Explain "equilibrium moisture content" and critical moisture content. Discuss their importance in the process of drying.
   b) Explain with the help of neat diagram the construction, working, merits and demerits of spray dryer.

5. a) What is Mier's theory of super saturation? Discuss its limitations.
   b) Why do crystals cake during storage? Discuss methods of prevention of crystal caking?
   c) Given construction and working of a typical vacuum crystallizer.

6. a) Discuss the factors affecting the leaching process
   b) Describe solid/liquid extraction theory.
   c) Give construction and working of an equipment used to extract tannings from tan bark on large scale.

7. Write short notes on :
   a) Propeller mixer
   b) Plate and frame filter press

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