Roll No. ....

PY–401(O&N)

B. Pharm. (Fourth Semester)
EXAMINATION, June, 2011
PHARMACEUTICS – V (Old)

PHARMACEUTICS – IV (New)

(Pharmaceutical Engineering – II)

Time : Three Hours

Maximum Marks : 70

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

1. (a) What are the factors affecting size reduction ? Explain the construction, working and advantages of fluid energy mill. 7

   (b) Describe about the various sieving methods. 7

2. (a) How do multiple effect evaporators work ? Give a neat diagram to explain its working. 7

   (b) Explain the construction and working of calandria. Give its advantages and disadvantages. 7

3. (a) Write a brief account of McCabe-Thiele approach for prediction of theoretical plates. 7

   (b) What are Azeotropic mixtures ? How can they be separated ? 7

4. (a) Describe about the working of lyophilizers. Give its principle, construction and application. 7

   (b) Give the schematic diagram, procedure, applications and advantages of soxhlet extractor. 7

5. (a) Write the theory of semisolid mixing. Give a brief account on the equipment used in semisolid mixing. 7

   (b) Explain the Mier's supersaturation theory of crystallization. What are limitations of Mier's theory ? 7

6. (a) Enumerate different methods for the determination of pore size of the membrane filter. Explain bubble point test method in detail. 7

   (b) Discuss the theory of filtration. Write a short note on filter aid. 7

7. (a) Explain the various properties of granules which may affect the tablet preparation. 7

   (b) What are the parameters you will consider for scale up of tablet formulation ? 7

8. Write short notes on any *four* of the following : 14

   (a) Diffusion battery

   (b) Ball mill

   (c) Crystal habit

   (d) Mixing index

   (e) Material balance

   (f) Fluidized bed dryer