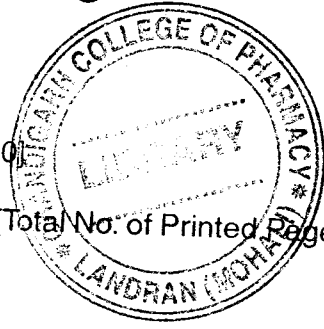Roll No.................

May 2004

Total No. of Questions : 10

[Total No. of Printed Pages : 4

PHARMACEUTICS-III

(Unit Operations-II)

(B.Pharmacy, 4th Semester, 2054)

Time : 3 Hours   Maximum Marks : 80

Note :— Section A is compulsory. Attempt any *Four* questions from Section B and any *Three* questions from Section C.

Section–A   Marks : 2 Each

1.   (a) What is a tie substance ?

    (b) What is Stefan-Boltzmann Law ?

    (c) What is Lagging ?

    (d) What is the difference between distillation and evaporation ?

Turn Over

H–75

(e) What is Rault's law ?

(f) Write mathematical expression for mean free path.

(g) What is equilibrium moisture content ?

(h) Explain Rittinger's law of size reduction.

(i) What do you mean by length of mixing ?

(j) Name *four* process variables.

(k) What is destructive distillation ?

(l) What do you mean by steady state reactor ?

(m) What is Elutriation ?

(n) What is Freeze Drying ?

(o) What is mole fraction ?

H–75

Section–B Marks : 5 Each

2. Explain the construction and working of double pipe heat exchanger.

3. Write a note on binary equilibrium curves for distillation and their use in McCabe-Thiele method.

4. What performance characteristics should be checked while selecting solids mixing equipment ?

5. Describe the *four* mechanisms of size reduction.

6. Describe the various elements of computer aided manufacturing.

Section–C Marks : 10 Each

7. Derive an equation for time of batch drying under constant drying conditions. Explain the various periods in the rate of drying curve.

8. Explain the construction and working of falling film evaporator with the help of diagram.

H–75

9. Classify the equipments used for liquid-liquid mixing. Explain any one emulsification equipment in detail.

10. How are number of theoretical plates determined ?