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Total No. of Questions : 10]

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P.H.M.–2.4.1

PHARMACEUTICS–III

(Unit Operations–II)

(B.Pharmacy., 4th Semester, 2124)

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. Write short notes on :

   (a) Tie Substance.

   (b) Volatility

(c) L.O.D.

(d) Mole Fraction.

(e) Softening Temperature.

(f) Neutral Mixture.

(g) Convection.

(h) Reactor.

(i) Coarse Powder.

(j) Feedback Control.

(k) Mixing Efficiency.

(l) Steady State.

(m) Elutriation.

(n) Fourier's Law.

(o) Zeotropic Mixture.

Section–B Marks : 5 Each

2. Write briefly about the Coulter counter method for particle size analysis.

3. What is Automatic Process Control ? Give its advantages ?

4. Describe with a diagram Sigma blade mixers.

5. Discuss the methods to improve the efficiency of evaporation.

6. Describe a mill based on the principle of impact and attrition.

Section–C Marks : 10 Each

7. Describe in detail the behaviour of solids during drying and how can solids be classified according to that.

8. Describe the McCabe Thiele method for calculation of No. of theoretical plates.

9. Discuss with a diagram the construction and working of multiple tube heat exchanger.

10. What basic things must be kept in mind while developing a reactor for the production of pharmaceutical say antibiotics.