



Roll No

Total No. of Questions : 10

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P.H.M. 2.4.1. PHARMACEUTICS - III

(UNIT OPERATION-II)

(B. Pharmacy - 4th Semester, 2056)

Time : 3 Hours

Marks : 80

Note : Section A is compulsory. Attempt any four questions from Section B and attempt any three questions from Section C.

SECTION - A

Answer all of the following :

(15x2=30 M)

- 1 a) Define steady and unsteady states?
b) Define "Grey Body" and "Black Body".

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Turn over

(2)

- c) Define "Equilibrium Moisture content" and "Critical moisture content"?
- d) Write Raoult's law and write its significances?
- e) Write about simple hydraulic particle size separation process?
- f) Explain Drying curve with a neat diagram?
- g) Write the equipment used in liquid liquid mixing?
- h) Explain the term "rectification".
- i) Write the advantages with computer aided manufacturing?
- j) Classify evaporators?
- k) Explain the role of condensers in evaporation?
- l. Define Mixing Index?
- m. Suggest suitable mixers for mixing ointments?

(3)

- n. Write about sieve analysis?
- o. Write the mechanisms of size reduction with examples?

SECTION - B

Answer any FOUR of the following :

(4x5=20)

- 2. Describe the following with neat sketch:
(a) kneader (b) Banbury Mixer
- 3. Write about Dimensional analysis?
- 4. Describe the steam distillation process?
- 5. Write the objectives of size reduction process?
- 6. Describe the surface coefficients and overall coefficients in Heat Transfer?

(4)

SECTION - C

Answer any THREE of the following :

(3x10=30)

7. Describe the design and working of multiple - effect evaporator?
8. Classify and describe the sensors used in automated process control system?
9. Classify and describe the screening equipment?
10. Describe, with a neat sketch the construction and working of spray dryer?