

[Total No. of Questions - 9] [Total No. of Printed Questions - 2]
(2126)

16371(D)

B. Pharmacy 3rd Semester Examination
Pharmaceutics-II (Unit Operations) (CBS)
BP-302

Time : 3 Hours

Max. Marks : 60

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

Note : Attempt five questions. Attempt one question from each Unit. Question no. 9 is Compulsory. All Questions carry equal marks.

UNIT - I

1. (a) Describe the purpose of studying the flow of liquids and gas in pharmaceutical sciences. (4)
- (b) Explain 'Reynolds Number'. (8)
2. Write notes on:
 - (a) Dimensional formulae.
 - (b) Types of Valves. (6+6=12)

UNIT - II

3. What is the role of various filter media and filter aids in pharmaceutical industry? Discuss. (12)
4. Write notes on:
 - (a) Basket Centrifuge.
 - (b) Glass as a material of construction. (6+6=12)

UNIT - III

5. Describe the role of crystallization in preparing pure chemicals. Explain various crystal forms and crystal habits. How can caking of crystals prevented? (12)

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6. Write notes on:
 - (a) Application of humidity control in manufacturing (HVAC).
 - (b) Principle and application of Refrigeration. (6+6=12)

UNIT - IV

7. Write notes on:
 - (a) Different types of pumps.
 - (b) Handling of solid materials. (6+6=12)
8. (a) Explain the preparation and applications of ion exchange resin in pharmaceutical industry.
- (b) Describe the working of 'moving bed ion exchange' equipment. (6+6=12)

UNIT - V

(Compulsory question)

9. Describe briefly:
 - (a) Bins
 - (b) Air conditioning
 - (c) Humid heat
 - (d) Resins
 - (e) super saturation
 - (f) Reynold's number
 - (g) Centipoisse
 - (h) Filter aid
 - (i) Candle filter
 - (j) Thermoset plastic
 - (k) Crystallizer
 - (l) Filter leaf. (1×12=12)