

16328(J) June-16

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SECTION - B

B. Pharmacy (Ayurveda) 4th Semester Examination

Pharmaceutics (Principles of  
Pharmaceutical Operations) (NS)

BPA-424

Time : 3 Hours

Max. Marks : 70

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 : Question 1 is compulsory. Attempt any five questions from Section B.

SECTION - A

1. Answer the following questions briefly:
  - (a) What do you understand by energy and mass balance?
  - (b) Define critical moisture content and equilibrium moisture content.
  - (c) Briefly explain Bernoulli's theorem
  - (d) Enlist the factors influencing the rate of filtration
  - (e) Differentiate between refrigeration and air conditioning
  - (f) What is dew point?
  - (g) Define filter aids and write its uses.
  - (h) Write the Fourier's law and discuss its application.
  - (i) Write the Pharmaceutical applications of fluidized bed dryer.
  - (j) Arrange the following coloured surfaces in increasing order of heat transfer coefficient  
Red, Green, Blue, White, Black

(2×10=20)

[P.T.O.]

2. (a) Classify dryers with suitable examples. (3)  
(b) With labeled diagram, describe principle, working and uses of spray dryer. (7)
3. (a) Describe the principle, working and uses of mill based on principle of impact and attrition. (6)  
(b) Write a note on molecular distillation. (4)
4. (a) With labeled diagram, describe principle, working and uses of finned tube. (5)  
(b) Discuss the factors affecting the rate of evaporation. (5)
5. (a) Define mixing efficiency and discuss the different factors affecting it. (5)  
(b) Discuss a method for calculation of overall heat transfer coefficient. (5)
6. Draw a psychometric chart and write the method to measure the humidity with use of psychometric chart. (10)
7. Write short notes on:
  - (a) Theory of centrifugation.
  - (b) Flow meters. (10)