

Code No: F-7174/PCI

FACULTY OF PHARMACY

B. Pharmacy III - Semester (PCI) (Main & Backlog) Examination, April 2024
Subject: Pharmaceutical Engineering

Time: 3 Hours

Max Marks: 75

PART-A

Note: Answer all the questions.

(10 x 2 = 20 Marks)

1. Enlist the merits and demerits of a sieve shaker.
2. Write the mechanisms of size reduction.
3. Differentiate between evaporation and drying.
4. Write the principle of distillation under reduced pressure.
5. List objectives and applications of drying.
6. Write factors affecting mixing.
7. Write the application of centrifugation.
8. Mention various filtration techniques & equipment.
9. Classify the ferrous material for plant construction.
10. Write different types of corrosion.

PART-B

Note: Answer any two questions.

(2 x 10 = 20 Marks)

11. Describe Bernoulli's theorem and write the construction, working principle of Orifice meter.
12. Explain the concept of drying rate curve and write its importance in construction & working of freeze dryer.
13. Write the factors affecting selection of plant materials and classify them.

PART-C

Note: Answer any seven questions.

(7 x 5 = 35 Marks)

14. Explain the losses of energy during flow of fluids.
15. Describe the construction and working of a fluid energy mill.
16. Compare and contrast heat interchanger and heat exchanger.
17. Explain the factors influencing evaporation.
18. Write the mechanisms of solid mixing and mention differences between solid and liquid mixing.
19. Write working principle of Silverson emulsifier with help of diagram.
20. Describe the working principle, merits and demerits of Seidtz filter.
21. Write the construction and working principle of semi continuous centrifuge.
22. Explain the material characteristics, advantages and disadvantages of organic nonmetals for plant construction.
