

[Total No. of Questions - 10] [Total No. of Printed Pages - 2]
(2064)

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B. Pharmacy (Ayurveda) 6th Semester Examination

Pharmaceutical Engineering-I

Paper-I

Time : 3 Hours

Max. Marks : 90

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 No. 1 is compulsory and attempt any five questions out of remaining nine.

1. Describe the mechanisms and modes of size reduction, which are commonly used in the preparation of ayurvedic dosage forms. (15)
2. List the equipments used for powder mixing in pharmaceutical industry. Explain the construction and working of a ribbon blender for mixing solids. (15)
3. (a) Describe one industrial method for size separation of a powder and its applications. (10)
(b) Describe the operation of agitator mixers. (5)
4. (a) What is evaporation? What are the various factors affecting the rate of evaporation? (10)
(b) Define the term distillation. How will you differentiate it from evaporation? (5)
5. (a) Give the construction and working of the still used for the preparation of water for injection. (10)
(b) Discuss the Mier's Super-saturation theory of crystallization. (5)

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6. Explain the construction and working of freeze dryer. Describe its applications in pharmacy. (15)
7. (a) Name the different processes used in the extraction of crude drugs. Describe briefly the simple maceration process. (10)
(b) Write short note on Soxhlet extractor. (5)
8. (a) Compare the construction and working of spray dryer with tray dryer. (10)
(b) Write short note on 'Silverson Mixer' emulsifier. (5)
9. (a) Give construction and working of 'Ball mill'. (10)
(b) Define the term 'comminution'. What is the importance of particle size reduction in pharmaceutical field? (5)
10. What is caking of crystals? Discuss in detail about factors affecting and preventive measures for caking. (15)