

Second Year B.Pharm (Ayurveda) Degree Examinations, October 2014**Pharmaceutical Engineering****Time: 3 Hours****Total Marks: 100**

- Answer all questions.

Essays:**(2x10=20)**

1. What is the importance of crystallization in pharmaceutical industries. Explain the working of Swenson-walker crystallizer
2. Describe the working of any two conveyors used for the transportation of powders

Answer briefly:**(10x5=50)**

3. Define convection and mention the different types of convection
4. Reynold's number of types of flow
5. Working of planetary mixer with a neat diagram
6. Distinguish between filtration and configuration
7. Azeotropic distillation.
8. McCabe-Thiele method used to determine number of theoretical plates
9. Construction and working of single effect evaporator
10. What is corrosion. Mention the factors influencing rate of corrosion
11. Equipments used for mixing powders
12. Narrate reasons for the uses of stainless steel and glass as a material of construction in pharmaceutical industries.

Short notes:**(10x3=30)**

13. Define equilibrium moisture content of free moisture content
14. Principle of simple manometer
15. Define Fourier's law with equation
16. Raoult's law
17. Define and classify driers with suitable example
18. What are filter aids
19. Methods of preventing caking of crystals
20. What are the applications of air conditioning
21. Mechanism of dehumidification
22. Working of rotary cutter mill with diagram
