

**Second B.Pharm (Ayurveda) Degree Supplementary Examinations
November 2021**

Pharmaceutical Engineering

Time: 3 Hours**Total Marks: 100**

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*

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

1. Define size reduction. Explain the principle, construction, working, advantages and applications of fluid energy mill.
2. Explain drying. Describe the theory of drying. Explain the construction and working of spray dryer

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

3. Explain the principle, construction and working of filter leaf
4. Automatic process control systems used in pharma industries
5. Explain the prevention and control of corrosion
6. Factors affecting caking of crystals and prevention of caking.
7. Explain the principle and working of forced circulation evaporator
8. Explain the principle and construction of orifice meter
9. Discuss the principle and working of planetary mixer
10. Convection. Derive overall heat transfer coefficient.
11. Explain the laws governing size reduction
12. Explain in detail about chemical hazards and its safety precautions

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

13. Approaches for dehumidification.
14. Stainless steel
15. Explain the deviations from Raoult's law
16. Factors affecting evaporation
17. Equipments involved in solid mixing
18. Vacuum distillation
19. Pneumatic conveyor
20. Fundamental concepts of radiation
21. Factors influencing filtration
22. Centrifugal effect