

QP CODE: 204008

Reg. No:

**Second B.Pharm (Ayurveda) Degree Regular/Supplementary
Examinations November 2019**

Pharmaceutical Engineering

Time: 3 Hours

Total Marks: 100

- Answer all questions.

Essays:

(2x10=20)

1. What is evaporation. Explain the principle, construction and working of forced circulation evaporator
2. Define crystallization. Explain the theory of crystallization. Add a note on vacuum crystallizer

Answer briefly:

(10x5=50)

3. Define film coefficient. Derive overall heat transfer coefficient
4. Discuss the principle and construction of filter leaf
5. Explain the principle and working of Lyophilizer
6. Types and applications of glass in pharmaceutical industry
7. Explain flash distillation
8. Explain the various approaches for dehumidification
9. The prevention and control of corrosion
10. Explain various theories involved in size reduction
11. Explain the construction and working of continuous horizontal centrifuge
12. Rotary pumps

Short notes:

(10x3=30)

13. Stefan Boltzmann law and its importance
14. Mechanism of filtration.
15. Bonds theory and its applications.
16. Centrifugal effect
17. Explain Raoult's law.
18. Explain real solution and deviations from Raoult's law
19. Types of fractionating column.
20. Principle and construction of short tube evaporator
21. Equipments for liquid mixing
22. Narrate on equipments for gas handling
