

QP CODE: 204008

Reg. No:

**Second B. Pharm (Ayurveda) Degree Regular/Supplementary
Examinations April 2022**

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. Explain distillation. Explain the principle, working and applications of fractional distillation.
2. Define conduction. Explain the Fourier's law of heat transfer through a cylinder. Add a note on overall heat transfer coefficient.

Answer briefly:

(10x5=50)

3. Humidity chart and its applications.
4. Explain the construction and working of fluid energy mill.
5. Reciprocating pump.
6. Explain the construction and working of fluidized bed dryer
7. Bernoulli's theorem and its applications
8. Mechanical hazards and its prevention
9. Types and uses of glass in pharmaceutical industry.
10. Explain the construction and working of any one sedimentation Centrifuge.
11. Agitated batch crystallizer
12. Explain the principle, construction working of filter leaf.

Short notes:

(10x3=30)

13. Reynolds number
14. Filter aids and its mechanism
15. Factors affecting evaporation
16. Centrifugal effect
17. Diaphragm pump
18. Laws governing size reduction
19. Drying rate curve
20. Stefan Boltzmann law and its relevance
21. Screw conveyor.
22. Explain any one equipment used for semisolid mixing
