

QP Code: 324006

Reg. No.....

**Third Semester B. Pharm Degree Supplementary Examinations
October 2024**

Pharmaceutical Engineering

(2017 Scheme)

Time: 3 Hours

Max. Marks: 75

- *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*
- *Draw table/diagrams/flow charts wherever necessary*

Essays

(2x10=20)

1. Describe the principle, construction and working of multiple effect evaporator with neat diagram. Add a note on its Economy.
2. Explain the principle, construction, working, uses, merits and demerits of fluid energy mill.

Short Notes

(7x5=35)

3. Explain the principle, construction and working of Tray dryer. Give its applications
4. Describe the Reynolds experiment for flow of fluids.
5. State and derive Fourier's law and give its applications.
6. Explain the factors affecting rate of evaporation.
7. Describe the principle and apparatus set up for Flash distillation.
8. Define corrosion. Write about types of corrosion.
9. Write the principle, construction and working of cyclone separator with neat diagram.

Answer Briefly

(10x2=20)

10. Filter aids with examples.
11. Mechanisms of size reduction.
12. Differentiate between solid and liquid mixing.
13. Write the applications of Freeze dryer.
14. Give the applications of size separation.
15. Define filtration and centrifugation process.
16. Enlist different types of metals and non-metals.
17. Uses of sigma blade mixer.
18. Draw well labeled diagram of Rotameter.
19. Enlist factors affecting mixing of solids.
