

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[BPHARM 0921]

**SEPTEMBER 2021
(SEPTEMBER 2020 EXAM SESSION)**

Sub. Code: 2037

**B.PHARM. DEGREE EXAMINATION
PCI Regulation 2017 – SEMESTER III
PAPER IV - PHARMACEUTICAL ENGINEERING**

Q.P. Code: 562037

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions. (2 x 10 = 20)

1. Describe the mechanism and different modes of Stress applied in size reduction. Write the principle, construction and working of Fluid energy mill.
2. Explain the Reynolds experiment & Bernoulli's theorem of fluid flow.
3. Write about the principle, construction, working and application of FBD.

II. Write notes on: Answer any SEVEN questions. (7 x 5 = 35)

1. Cyclone Separator.
2. Mechanism of Filtration.
3. Factors affecting size reduction.
4. Planetary mixer.
5. Multiple effects of Evaporator.
6. Glass as the material of Pharmaceutical plant construction.
7. Different sources of Heat.
8. Explain Raoult's law of distillation.
9. Basic of Material handling systems.

III. Short answers on: Answer ALL questions. (10 x 2 = 20)

1. Lyophilization.
2. Critical moisture content.
3. Applications of Centrifugation.
4. Fourier's law.
5. What are the standards for Sieves?
6. Comminution.
7. Filter media.
8. Binary mixture.
9. Calandria.
10. Flash distillation.
