

**VINAYAKA MISSION'S RESEARCH FOUNDATION
(Deemed to be University) , SALEM**

**B.PHARM. DEGREE EXAMINATION – October 2021
Third Semester**

PHARMACEUTICAL ENGINEERING

Time : Three hours

Maximum: 75 marks

I. Write essays on any **TWO** questions: (2 x 10 = 20)

1. Explain in detail any two hydrodynamic devices used in the measurement of fluid flow.
2. Define in detail any two heat interchanges with a neat diagram.
3. Explain in detail about the ferrous and non-ferrous materials used in plant construction.

II. Write short answers on any **SEVEN** questions: (7 x 5 = 35)

4. Write a note on the simple manometer.
5. Note on edge runner mill.
6. Fourie's law and its application.
7. Steam distillation.
8. Note on drum dryer.
9. Mechanisms of filtration.
10. Note on cartridge filter.
11. Principal, construction, working of super centrifuge.
12. Types of corrosion.

III. Write short notes on : (10 x 2 = 20)

13. Define critical velocity.
14. Define conduction.
15. Factor influencing evaporation.
16. Differentiate heat interchange and heat exchange.
17. Merits of freeze dryer.
18. Methods to avoid vortex formation in mixing.
19. Define slurry, filter media and filtration.
20. Note on seidtz filter.
21. Demerit of perforated basket centrifuge.
22. Define corrosion and its types.
