

QP Code: 324006

Reg. No.....

**Third Semester B. Pharm Degree Regular/Supplementary  
Examinations August 2023**

**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, working and uses of Fluidized bed dryer with neat labelled diagram
2. Discuss about propellers, turbines and paddles with diagrams

**Short Notes**

**(7x5=35)**

3. Explain the different laws governing size reduction
4. Write the different grades of powders with standard IP specifications
5. Explain the construction and working of orifice meter with diagram
6. Explain the theories of heat transfer by radiation
7. Describe the theory of centrifugation
8. Explain the construction and working of horizontal tube evaporator with a neat diagram
9. Factors influencing selection of materials for Pharmaceutical plant construction

**Answer Briefly**

**(10x2=20)**

10. Belt conveyors
11. Define EMC and FMC in relation to drying
12. Enlist the factors influencing the filtration
13. Mechanisms of solid mixing
14. Uses of mechanical sieve shaker machine
15. Mechanisms of heat transfer
16. Differentiate between simple and steam distillation
17. Applications of super centrifuge
18. Advantages of hammer mill
19. Types of ferrous metals used in pharmaceutical plant design

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