

**QP CODE: 204008**

**Reg. No: .....**

**Second B.Pharm (Ayurveda) Degree Regular/Supplementary  
Examinations April 2021**

**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 conduction. Explain Fourier's law of heat transfer through a metal wall.
2. Define filtration. Explain the principle, construction and working of filter press

**Answer briefly:**

**(10x5=50)**

3. Explain the theories of filtration
4. Explain humidity chart and measurement of humidity
5. Write the principle, construction and working of an industrial centrifugal filter
6. Explain the principle and working of spray dryer
7. Explain the theory of crystallization
8. Discuss the principle and construction of steam distillation
9. Automatic process controlled systems in pharmaceutical industry
10. Explain the principle and construction of ball mill
11. Describe the construction and working of Venturimeter
12. Diaphragm pump

**Short notes:**

**(10x3=30)**

13. Reynolds number and its importance
14. Mechanism involved in liquid mixing
15. Rittinger's theory and its application
16. Screw conveyor
17. Factors influencing mixing
18. Kirchhoff's law
19. Differentiate natural and forced convection
20. Caking of crystals and its prevention
21. Flash distillation
22. Mechanism of humidification

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