

[Total No. of Questions - 18] [Total No. of Printed Pages - 2]  
(2064)

14765

**B. Pharmacy 2nd Semester Examination**

**Unit Operations-I (N.S.)**

**BP-123**

**Time : 3 Hours**

**Max. Marks : 70**

*The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.*

**Note :** Attempt any two questions from Section-A, any eight questions from Section-B. Section-C is compulsory.

**SECTION - A**

1. Describe the principle, construction & working of orifice meter and venturimeter.
2. Enumerate various devices used for transportation of solids. Discuss construction & working of belt conveyor.
3. Describe the theories of filtration and the factors affecting rate of filtration. (2×10=20)

**SECTION - B**

4. Explain the term mass balance & energy balance.
5. Derive the expression for Bernoulli's theorem.
6. Discuss construction & working of turbine pump.
7. Describe electric & fire industrial hazards.
8. Give construction & working of perforated basket centrifuge.
9. Discuss Mier's supersaturation theory.

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10. Explain construction & working of Swenson Walker crystallizer.
11. Discuss salient features of humidity charts.
12. Explain principle & working of air conditioner.
13. Discuss steel as material of plant construction. (5×8=40)

**SECTION - C**

14. Discuss importance of unit operations in pharmaceutical processing.
15. Define crystal lattice & crystal habit.
16. Give applications of humidification & dehumidification.
17. Discuss the parameters used for selection of material of construction of equipments.
18. Give properties of filter aids. (5×2=10)