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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. \((5 \times 8 = 40)\)

**SECTION - C**

14. Discuss importance of unit operations in pharmaceutical processing.

15. Define crystal lattice & crystal habit.


17. Discuss the parameters used for selection of material of construction of equipments.

18. Give properties of filter aids. \((5 \times 2 = 10)\)