[Total No. of Questions - 18] [Total No. of Printed Pages - 2]
(2125)

15452

B. Pharmacy 3rd Semester Examination

Physical Pharmacy-I (NS)

BP-233

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.

SECTION - A
(Attempt any two questions)

1. What are accelerated stability studies? What are the salient features & limitations of the accelerated stability studies?
2. Define order of reaction. Explain the different methods for determination of order of reaction.
3. What is critical constant? Explain the different methods of liquefaction of gases. (2×10=20)

SECTION - B
(Attempt any eight questions)

4. What is partition coefficient? Give its application in pharmacy.
5. Explain in detail about Triple Point.
6. Describe the influence of temperature on the rate of reaction.
7. Write comparison between Isothermal and Adiabatic expansion.
8. Elaborate on colligative properties and Eutectic mixtures.
9. Write a note on pharmaceutical buffers.
10. Discuss the applications of the phase rule.

[P.T.O.]

11. Briefly discuss the solubility of gases in liquids.
12. Write a note on chemical degradation of drugs.
13. Write short notes on:
    (a) Free energy functions and its measurement.
    (b) Half-life determination. (8×5=40)

SECTION - C
(All questions are compulsory)

14. Explain Debye Huckle theory.
15. What is meant by physical degradation of drugs?
16. Define ideal and real solutions.
17. How crystalline solid differs from amorphous solids?
18. Write a note on Refractive Index and Molar Refraction. (5×2=10)