Sl.No: M21419 **Course Code: BP302T**

VINAYAKA MISSION'S RESEARCH FOUNDATION
(DEEMED TO BE UNIVERSITY), SALEM

B.PHARM. DEGREE EXAMINATION – JULY 2019
Third Semester

PHYSICAL PHARMACEUTICS I

Time : Three hours Maximum: 75 marks

I. Write essays on any **TWO** questions: **(2 x 10 = 20)**

1. Write a note on Fick's law of diffusion and explain about Franz diffusion cell.
2. What is amorphous and crystalline solid? Explain about different types of crystalline solids.
3. Define dissolution constant and explain Hendersen Hasselbach equation with its applications.

II. Write short answers on any **SEVEN** questions**:** **(7 x 5 = 35)**

4. Describe about ideal solutions and real solutions.
5. Explain the mechanism of dissolution using interfacial barrier theory.
6. State and explain laws governing gas equation.
7. Define refractive index and the factors influencing refractive index.
8. Discuss various methods involved in analyzing complexes.
9. Define surface tension and interfacial tension. What are the methods for measurement of surface and interfacial tension?
10. Describe about glassy state and its significance.
11. Write about dielectric constant and its measurement.
12. Explain surfactants, its types with examples.

III. Write short notes on : **(10 x 2 = 20)**

13. What is ultrafiltration?
14. Define oleifin complex.
15. Define entropy.
16. What is an ideal gas?
17. Define eutectic mixture.
18. What is normality?
19. What is specific rotation?
20. Define ligand.
21. What is osmolarity?
22. Define relative humidity.

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