Sl.No:M21202 **Course Code: BP302T**

VINAYAKA MISSION'S RESEARCH FOUNDATION

(Deemed to be University) , SALEM

B.PHARM. DEGREE EXAMINATION – October 2021

Third Semester

PHYSICAL PHARMACEUTICS - I

Time : Three hours Maximum: 75 marks

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

1. What are ideal solutions? State Raoult's law. Describe the deviations from the law with suitable examples.
2. Explain the following with determination methods and applications.
   i) Dielectric constant
   ii) Dipole moment
3. Discuss in detail about adsorption at solid interfaces.

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

4. Explain Dalton's law of partial pressures.
5. What is eutectic mixture and write its applications.
6. Describe Hydrophilic lipophilic (HLB) scale.
7. What is the influence of complexation on drug action? Explain with examples.
8. What is the influence of protein binding on drug action? Explain with examples.
9. Explain Werner postulates for Inorganic type Complexes.
10. Write a note on factors influencing pH of a buffer.
11. Preparation of buffer solutions.
12. Write a note on Buffer capacity.

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

13. Solubility.
14. Partition coefficient.
15. Henderson Hasselbalch equation.
16. Scatchard – Hildebrand equation.
17. Latent heats.
18. Relative humidity.
19. Applications of complexation.
20. Electrical double layer.
21. Drug and caffeine complexes.
22. Example of pharmaceutical Buffers.

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