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

B.PHARM. DEGREE EXAMINATION – JANUARY 2020
Third Semester

PHYSICAL PHARMACEUTICAL I

Time   : Three hours   Maximum: 75 marks

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

   1. What are buffers? Explain buffer equation for a weak acid and is salt and buffer equation for a weak base and its salt.
   2. Explain the formation of electrical double layer at the interface with the help of a neat diagram.
   3. What are organic complexes? Classify and explain each type with suitable examples.

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

   4. What is critical solution temperature? What is the effect of impurity on critical solutions temperature?
   5. With the help of neat phase diagram, explain the principle of sublimation.
   6. Refractive index and optical rotation.
   7. Explain the principle involved in the pH titration method of complex action.
   8. Explain Du Nouy tensiometer method.
   9. Write a note on HLB scale.
   10. Write a note on sorrensen's pH scale.
   11. Give the use of surfactants in pharmacy.
   12. Explain the freundlich's adsorption isotherm.

III. Write short notes on :   **(10 x 2 = 20)**
   13. What is dipole- dipole moment?
   14. Give any two applications of buffers.
   15. Define a solute and solvent.
   16. What is a chelate?
   17. Define surface tension and interfacial tension.
   18. What are olefim complexes?
   19. Define critical micelle concentration.
   20. Define eutectic mixture.
   21. Lalent heat of vaporization.
   22. Define merriest distribution law.

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