SEMESTER EXAMINATION-2021
CLASS – B.PHARMA- IIISEM
SUBJECT- PHYSICAL PHARMACEUTICS-I
PAPER CODE: BP302T

Time: 3 hour   **Max. Marks: 75**
                                                    Min. Pass: 40%

Note: Question Paper is divided into two sections: **A and B.** Attempt both the sections as per given instructions.

SECTION-A (SHORT ANSWER TYPE QUESTIONS)

Instructions: Answer any five questions in about 150 words   (5 X 7 = 35 Marks)
          each. Each question carries seven marks.

Question-1: What is Distribution law? Enlist its limitations and applications.
Question-2: Explain the methods to determine the surface tension of a liquid.
Question-3: Explain the electrical double layer of an interface.
Question-4: What is angle of repose? How is it determined?
Question-5: Explain the method for determination of CST.
Question-6: What are eutectic mixtures? Explain with examples.
Question-7: Explain the mechanism of cyclodextrin drug inclusion complex. Give its applications
Question-8: Define HLB scale. Give various estimation methods of HLB.
Question-9: What are surface and interfacial tensions? Explain.
Question-10:Define dielectric constant and optical rotation of drug molecules.

SECTION-B (LONG ANSWER TYPE QUESTIONS)

Instructions: Answer any FOUR questions in detail. Each   (4 X 10 = 40 Marks)
question carries Ten marks.

Question-11: Derive Henderson-Hasselbalch equation for buffers containing weak acids with its salt.
Question-12: Define buffered isotonic solution. Describe methods of adjustment tonicity.
Question-13: Describe the method of determining solubility of solids in liquids.
Question-14: Explain the methods for pH determination.
Question-15: Define Adsorption isotherm. Explain Freundlich and Langmuir adsorption.
Question-16: Define complexation. Give its application and classification.
Question-17: Explain true density and bulk density and their determination.
Question-18: Define Micromeritics. Enlist various methods of determine particle size. Explain particle size measurement by sedimentation method.
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