

BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(END-SEMESTER EXAMINATION)

CLASS: B.PHARM.
BRANCH: PHARMACY

SEMESTER: III
SESSION: MO18

SUBJECT: BP302T PHYSICAL PHARMACEUTICS - I

TIME: 3.00 Hour

FULL MARK: 75

INSTRUCTIONS:

1. The missing data, if any, may be assumed suitably.
 2. Before attempting the question paper, be sure that you have got the correct question paper.
 3. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
 4. This question paper consists of (03) three parts. Read the part wise instructions before attempting the questions.
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PART-I

Multiple Choice Questions (Instruction: Answer all questions)

Q1. (10 x 02 = 20 marks)

- A. Spreading Coefficient is equal to difference between work of adhesion and-----
- B. Unit of Surface Tension is-----
- C. Phase Rule is expressed as-----
- D. Binodal Curve is observed in -----
- E. A liquid forms a film on other liquid if the Spreading Coefficient is-----
- F. What is the Freezing point of Blood?
- G. HLB denotes _____.
- H. CST means _____.
- I. Best O/W emulsifying agent has HLB of _____.
- J. The compound having ----- has the optical activity i.e property to rotate the plane of light

PART-II

Short Answers

(Instruction: Answer seven out of nine questions)

(7 x 5 = 35 marks)

- Q2. Define and state formula of Dissociation Constant.
- Q3. Define Eutectic Point and Eutectic system.
- Q4. Define Polymorphism and preparation of buffers.
- Q5. Describe Adsorption Isotherm.
- Q6. Discuss TPD taking one pair of partially miscible liquid.
- Q7. Describe Liquid Crystal.
- Q8. What do you mean by surfactant? Discuss its role and different types.
- Q9. Define Phase Rule and one component system.
- Q10. Define UCT and Critical Temperature.

PART-III
Long Answers

(Instruction: Answer two out of three questions)

(2 x 10 = 20 marks)

- Q11. Describe importance of Isotonic solution and write different methods for its preparation in brief.
- Q12. Define Surface tension and state different methods for its determination. Explain any one method in detail.
- Q13. Describe HLB Scale and its utilisation in Formulation Development.

:::::28/11/2018:::::E