

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

**CLASS: B. Pharm.  
BRANCH: PHARMACY**

**SEMESTER: I  
SESSION: MO 2023**

**SUBJECT: BP103T PHARMACEUTICS - I**

**TIME: 3.00 Hours**

**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.

**PART-I**

**Objective types questions (Instruction: Answer all questions)**

- Q1. (10 x 2 = 20 Marks)
- |   |      |
|---|------|
| A. What do you mean by O/W and W/O emulsion?  | CO 1 |
| B. What do you mean by indiffusible solids in suspension?   | CO 1 |
| C. What is emulsifying agent?   | CO 1 |
| D. What do you mean by posology?  | CO 1 |
| E. The adult dose of a drug is 600mg. What is the dose of the same for a 2 year old child according to dilling's formula. | CO 2 |
| F. What do you mean by isotonic and paratonic solution?   | CO 1 |
| G. What do you mean by incompatibilities?   | CO 3 |
| H. What do you mean by 2% w/v solution?   | CO 2 |
| I. What do you mean by semisolid dosage form? Give any suitable example.  | CO 1 |
| J. What do you mean by geometric dilution?  | CO 1 |

**PART-II**

**Short Answers**

**(Instruction: Answer seven out of nine questions)**

(7 x 5 = 35 Marks)

- |  |     |
|--|-----|
| Q2. Discuss various components of prescription in detail   | CO2 |
| Q3. In what proportions should 20%, 15%, 5% alcohols should be mixed to obtain 250 ml of 8% alcohol?   | CO2 |
| Q4. Discuss the three theories or mechanism for penetration of drugs through transdermal route   | CO3 |
| Q5. Discuss any two methods of preparation of ointment   | CO4 |
| Q6. Discuss the physical and chemical incompatibility citing suitable examples   | CO3 |
| Q7. Weight of six blank suppositories is 6 g and weight of 6 suppositories containing 40% zinc oxide is 8.8 g. Calculate the displacement value of zinc oxide. | CO2 |
| Q8. Discuss the methods of mixing of powders in detail   | CO4 |
| Q9. Discuss in detail about flocculated and deflocculated suspension   | CO3 |
| Q10. Discuss the evaluation of ointment in detail  | CO5 |

**PART-III**

**Long Answers**

**(Instruction: Answer two out of three questions)**

(2 x 10 = 20 marks)

- |   |     |
|---|-----|
| Q11. Elaborate in detail the various parameters of creaming related to stability of emulsion                          | CO5 |
| Q12. Describe the various methods of preparation of emulsion  | CO4 |
| Q13. Describe various methods of preparation of suspension in special reference to diffusible and indiffusible solids | CO4 |