

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

CLASS: B.PHARM.
BRANCH: PHARMACY

SEMESTER: I
SESSION: MO 2025

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)

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|----|--|------|
| A. | What do you mean by effervescent powders? | CO 1 |
| B. | Enumerate difference between lotion and liniment. | CO 1 |
| C. | Define suppositories | CO 1 |
| D. | What do you by w/v solution? | CO 1 |
| E. | What do you mean proof spirit and write down calculation to convert %v/v alcohol to proof spirit in India. | CO 1 |
| F. | Calculate the proof strength of 45% v/v alcohol. | CO 2 |
| G. | Define emulsion. | CO 3 |
| H. | Define suspension. | CO 3 |
| I. | Enlist types of bases used in preparation of suppositories. | CO 1 |
| J. | Define ophthalmic ointment with suitable example. | CO 1 |

PART-II

Short Answers

(Instruction: Answer seven out of nine questions)

(7 x 5 = 35 Marks)

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|------|--|-----|
| Q2. | Calculate the quantity of 70%, 60%, 40% and 30% alcohol that should be mixed to get 55% alcohol. | CO2 |
| Q3. | Calculate the formula to dispense 200 ml of an eye wash containing 1% boric acid. (F.P of 1% boric acid is -0.29° C and F.P. point of 1% solution of solution of NaCl is -0.58° C) | CO2 |
| Q4. | Discuss in detail about various class ingredients and their function used for preparation of mouth wash. | CO3 |
| Q5. | Discuss the preparation of emulsion in detail. | CO4 |
| Q6. | Discuss the method of preparation of diffusible and indiffusible solids. | CO4 |
| Q7. | Discuss the method of preparation of suppositories. | CO2 |
| Q8. | Discuss the physical incompatibility in detail. | CO3 |
| Q9. | Discuss the three theories for penetration of drug through transdermal route with suitable diagram. | 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)

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|------|--|-----|
| Q11. | Define posology and also elaborate the various factors affecting posology. | CO2 |
| Q12. | Discuss the handling and errors in prescription in detail. | CO2 |
| Q13. | Discuss the method of preparation of ointment in detail. | CO4 |

:::21/11/2025:::E