

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

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

**SEMESTER: IV  
SESSION: SP25**

**SUBJECT: BP404T PHARMACOLOGY-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.
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**PART-I**

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

- Q1. (10 x 2 = 20 Marks)
- |                                                                          |     |
|--------------------------------------------------------------------------|-----|
| a) Differentiate idiosyncrasy and intolerance.                           | C03 |
| b) Mention names of two drugs acting on BZ1 receptor to induce sedation. | C05 |
| c) Define IV bolus and IV infusion.                                      | C02 |
| d) Define the brand name of drugs with an example.                       | C01 |
| e) State four examples of drugs used in Alzheimer's disease.             | C05 |
| f) Define first-pass metabolism of drugs.                                | C02 |
| g) Define IND and NDA.                                                   | C03 |
| h) Mention properties of neurotransmitters.                              | C05 |
| i) State the types of phase-2 drug metabolism reactions.                 | C02 |
| j) Specify the uses of local anaesthetics.                               | C04 |

**PART-II**

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

(7 x 5 = 35 Marks)

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|----------------------------------------------------------------------------------------------------------------------------------------------|-----|
| Q2. Differentiate between different types of receptors.                                                                                      | C01 |
| Q3. Discuss plants, microbiological, synthetic/semi-synthetic and minerals as the sources of drugs with examples.                            | C01 |
| Q4. Write a short note on plasma protein binding of drugs.                                                                                   | C02 |
| Q5. Discuss the role of renal mechanisms (filtration, secretion, reabsorption) in drug excretion.                                            | C02 |
| Q6. How the absorption of drugs is affected due to drug-drug interactions with proper examples.                                              | C03 |
| Q7. Describe the clinical condition of myasthenia gravis and specify its treatments.                                                         | C04 |
| Q8. Chemically classify the drugs used as local anaesthetics. Elaborate on the mechanism of action of these agents.                          | C04 |
| Q9. Write a short note on opioid receptors.                                                                                                  | C05 |
| Q10. Classify the barbiturates used as sedative and hypnotic agents with examples. Elaborate on the mechanism of action of the barbiturates. | C05 |

**PART-III**

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

(2 x 10 = 20 marks)

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| Q11. Specify the stages of general anaesthesia. Classify the agents used as general anaesthetics.                                                           | C05 |
| Q12. Classify cholinergic drugs and mention their effect on different body systems.                                                                         | C04 |
| Q13. Describe the factors affecting routes of drug administration. Discuss the advantages and disadvantages of intramuscular routes of drug administration. | C01 |

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