

DEPARTMENT OF PHARMACEUTICAL SCIENCES & TECHNOLOGY

BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(Internal Assessment I)

CLASS: BPHARM
BRANCH: PHARMACY

SEMESTER: VI
SESSION: SP 2025

SUBJECT: BP601T MEDICINAL CHEMISTRY-III

TIME: 2.00 Hour

FULL MARK: 30

PART I

- A. Objective-type questions (Answer all questions) (5 x 02 = 10 marks)
1. The core structure of ___ and ___ antibiotics contains a β -lactam ring.
 2. Streptomycin belongs to the ___ class, while doxycycline belongs to the ___ class of antibiotics.
 3. The mechanism of action of tetracyclines involves inhibiting ___ synthesis by binding to the ___ subunit of bacterial ribosomes.
 4. QSAR stands for ___ and establishes a relationship between ___ and biological activity.
 5. CADD stands for ___ and uses computational techniques like ___ to identify potential drug candidates.

PART II

- B. Long Answers (Answer any one out of two) (01x10=10 marks)
1. Explain the SAR of beta-lactam antibiotics with suitable examples.
 2. Explain the SAR of tetracycline antibiotics with suitable examples.

PART III

- C. Short Answers (Answer any two out of three) (02x05=10 marks)
1. Describe the life cycle of a malarial parasite with a suitable diagram.
 2. Discuss the importance of Hydrophobicity in QSAR studies.
 3. Discuss the degradation of beta-lactam antibiotics in acidic conditions.

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