DEPARTMENT OF PHARMACEUTICAL SCIENCES & TECHNOLOGY

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

CLASS: BPHARM **SEMESTER: VI**
BRANCH: PHARMACY **SESSION: SP/2025**

SUBJECT: BP605T PHARMACEUTICAL BIOTECHNOLOGY

TIME: 2.00 Hour **FULL MARK: 30**

PART I

A. Objective type questions (Answer all questions) (5 x 02 = 10 marks)

1. Immobilized cells are often preferred over immobilized enzyme. Cite reasons. CO2
2. Differentiate between the function of different nuclease enzymes with examples. CO3+CO4
3. Classify and name different support material for immobilization of enzymes. CO1+CO2
4. Emphasize the role of cos site in λ-DNA. CO2
5. Illustrate the geneology of pBR322 CO2+CO3

PART II

B. Long Answers (Answer any one out of two) (01x10=10 marks)

1. Detail out the principal and process of preparation of recombinant insulin CO5
2. Illustrate the principal and process of agarose gel electrophoresis. CO2

PART III

C. Short Answers (Answer any two out of three) (02x05=10 marks)

1. Discuss different immobilization reactions based on covalent binding with examples. CO3
2. What are insertion and replacement vectors? CO1
3. “Industrial applicability of enzymes/proteins can be improved by increasing its thermostability and half-life”. Cite few examples in support of the statement. CO4+CO5

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