

BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI  
(MID SEMESTER EXAMINATION)

CLASS: B.TECH  
BRANCH: BIOTECHNOLOGY

SEMESTER : V  
SESSION : MO/2025

SUBJECT: BE213 PHARMACEUTICAL BIOTECHNOLOGY

TIME: 02 HOURS

FULL MARKS: 25

**INSTRUCTIONS:**

1. The question paper contains 5 questions each of 5 marks and total 25 marks.
  2. Attempt all questions.
  3. The missing data, if any, may be assumed suitably.
  4. Tables/Data handbook/Graph paper etc., if applicable, will be supplied to the candidates
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		CO	BL
Q.1(a)	Describe the role of pharmaceutical biotechnology in health care.	[2] 1	2
Q.1(b)	Draw the models for organization of eukaryotic genome starting from DNA, its coiling and super coiled structure Chromosome.	[3] 1	4
Q.2(a)	Sketch the procedures involved in first generation of rational drug design?	[2] 2	2
Q.2(b)	Demonstrate the major concepts of second-generation of rational drug design. Defend that it is better than first generation of rational drug design.	[3] 2	3
Q.3(a)	Explain the basic concepts of molecular medicine?	[2] 1	2
Q.3(b)	Differentiate between conventional medicine and molecular medicine.	[3] 2	4
Q.4(a)	Present a report on present understanding about human genome.	[2] 1	2
Q.4(b)	What is gene testing? Demonstrate the tasks which are performed by gene testing.	[3] 2	3
Q.5(a)	Describe your perception regarding genetic disorders.	[2] 1	2
Q.5(b)	What is the role of diagnostics in medical world? How molecular diagnostics differ from it?	[3] 2	4

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