

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI**  
**(MID SEMESTER EXAMINATION MO/2024)**

**CLASS: BTECH**  
**BRANCH: BIOTECHNOLOGY**

**SEMESTER : V**  
**SESSION : MO/2024**

**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
- 

		CO	BL
Q.1(a)	Explain 'lac operon' as typical gene regulation model.	[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]	2 4
Q.2(a)	Design a pharmacophore for its antibacterial activity. Briefly describe steps.	[2]	1 6
Q.2(b)	Write your strategy for structure-based drug design.	[3]	1 6
Q.3(a)	List out different techniques for gene testing. Discuss detailed method for any one technique.	[2]	2 2
Q.3(b)	Justify, 'Pharmacogenetics is not Pharmacogenomics'.	[3]	2 5
Q.4(a)	Design steps for development of molecular diagnostics.	[2]	2 6
Q.4(b)	Mention different types of diagnostics. Discuss one type in detail.	[3]	2 2
Q.5(a)	Describe your perception regarding genetic disorders.	[2]	1 2
Q.5(b)	What do you mean by Oncogenes? Differentiate between <i>c-onc</i> and <i>v-onc</i> genes.	[3]	1 4

:25/09/2024:M