QP Code: RN21BTECH551 | Reg. No | | | | | | | | | | | AR 21

Gandhi Institute of Engineering and Technology University, Odisha, Gunupur

(GIET University)

B. Tech (Seventh Semester - Regular) Examinations, November – 2024

21BBTPE47002 - Medical and Pharmaceutical Biotechnology

(Biotechnology)

Time: 3 hrs | Maximum: 70 Marks

Answer ALL questions

(The figures in the right-hand margin indicate marks)

PART – A **(2 x 5 = 10 Marks)**

Q.1. Answer ***ALL*** questions		CO #	Blooms Level
a.	What are the roles of human growth hormones?	CO1	K1
b.	What are the reactions catalysed by microorganisms during bioconversion?	CO2	K2
c.	Define competitive ELISA.	CO2	K3
d.	What is the importance of Immunocytochemistry?	CO3	K2
e.	Write the importance of Good Laboratory Practices (GLP)?	CO4	K1

PART – B **(15 x 4 = 60 Marks)**

Answer ***All*** the questions		Marks	CO #	Blooms Level
2. a.	How insulin is produced by r-DNA technology.	8	CO1	K1
b.	Explain microbial transformation of two important antibiotics.	7	CO1	K2
	(OR)			
c.	Illustrate on different protein engineering techniques for drug development.	8	CO1	K3
d.	Give an account of drug design methods.	7	CO1	K2
3.a.	Describe the benefits of the DNA vaccine over the traditional vaccine and how it is made.	8	CO2	K2
b.	Give an account of hybridoma technology.	7	CO2	K3
	(OR)			
c.	Explain the various ELISA methods using a diagram and write application for each.	8	CO2	K1
d.	Write details on five enzymes used in clinical diagnosis.	7	CO2	K2
4.a.	Describe details on steps of drug development process.	8	CO3	K3
b.	Give an account of role of proteomics in drug development.	7	CO3	K3
	(OR)			
c.	Write on antibody-based protein assay for diagnosis.	8	CO3	K1
d.	Describe on how proteins are isolated from cell.	7	CO3	K2
5.a.	Write in depth about the good manufacturing practice (GMP) and its importance.	8	CO4	K3
b.	Explain water-soluble vitamin sources, functions, and symptoms of deficiencies.	7	CO4	K2
	(OR)			
c.	Give an account of analgesics drugs.	8	CO4	K1
d.	Write detail on antibody types, structures and role in human body.	7	CO4	K3

--- End of Paper ---