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Gandhi Institute of Engineering and Technology University, Odisha, Gunupur (GIET University)



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

21BBTOE47001-Animal 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. Write about serum and serum free medias.	CO1	K1
b. Write about scaling up the cell culture to large scale productions.	CO2	K1
c. Define balanced salt solutions.	CO3	K3
d. Define SSR markers and its uses.	CO4	K3
e. What are cell lines.	CO2	K2

PART – B

(15 x 4 = 60 Marks)

Answer **ALL** the questions

	Marks	CO #	Blooms Level
2. a. Demonstrate in brief about the equipment and materials used in animal cell culture technology.	8	CO1	K6
b. Describe about development of cell line by enzymatic disaggregation.	7	CO1	K5
(OR)			
c. Evaluate the measuring parameters of growth.	8	CO1	K2
d. Summarize about the chemical, physical and metabolic functions of different constituents of culture medium.	7	CO1	K5
3.a. Analyze about the viability and cytotoxicity of cell lines.	8	CO2	K3
b. Analyze the behavior of cells in culture media during growth.	7	CO2	K3
(OR)			
c. Describe in brief about the different type of cell culture media.	8	CO2	K5
d. Describe about the cryopreservation and also about the common cell culture contaminants.	7	CO2	K5
4.a. Evaluate the scope of Future tissue engineering in medical and tissue engineering aspects.	8	CO3	K2
b. Write about embryonic stem cells and their applications.	7	CO3	K1
(OR)			
c. Summarize about Transfection of animal cells.	8	CO3	K5
d. Summarize in brief about the Hybridoma technology.	7	CO3	K5
5.a. Describe about principle and procedure of PCR.	8	CO4	K5
b. Justify the AFLP and SNP markers.	7	CO4	K2
(OR)			
c. Demonstrate in brief about Northern and Southern blotting techniques.	8	CO4	K6
d. Describe in brief about the techniques of RAPD and STS.	7	CO4	K5

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