QP Code: RM21BTECH429 | Reg. No | | | | | | | | | | | AY 21

GIET UNIVERSITY, GUNUPUR – 765022

B. Tech (Sixth Semester Regular) Examinations, May – 2024

21BBTPC36001 - Plant Biotechnology

(Biotechnology)

Time: 3 hrs | Maximum: 70 Marks

(The figures in the right hand margin indicate marks)

PART – A **(2 x 5 = 10 Marks)**

		CO #	Blooms Level
Q.1.	Answer ***ALL*** questions		
a.	What is dedifferentiation of plant cell?	CO1	K1
b.	Define disarmed Ti plasmid.	CO2	K2
c.	Write a short note on *lux* A and its uses.	CO3	K2
d.	Explain about cybrids.	CO3	K3
e.	What is elicitors?	CO4	K4

PART – B **(15 x 4 = 60 Marks)**

		Marks	CO #	Blooms Level
	Answer ***ALL*** questions			
2. a.	Give an account of *in vitro* development of callus culture.	7	CO1	K1
b.	What are different types of organogenesis practices in tissue culture?	8	CO1	K2
	(OR)			
c.	Write on types and roles of plant growth regulators in tissue culture?	7	CO1	K3
d.	Describe the establishment and importance of single cell culture.	8	CO1	K3
3.a.	How protoplast is isolated? Write on different protoplast culture methods.	7	CO2	K4
b.	Write on different protoplast fusion techniques.	8	CO2	K1
	(OR)			
c.	Explain on steps of microspore culture.	7	CO2	K3
d.	Give an account of electroporation and microinjection techniques.	8	CO2	K4
4.a.	How disease resistance crop plants are developed?	7	CO3	K3
b.	Write on uses of reporter genes during gene transfer to plants.	8	CO3	K4
	(OR)			
c.	What is golden rice and how is it produced?	7	CO3	K4
d.	Explain on production artificial seed.	8	CO3	K2
5.a.	Discuss biotransformation with examples.	7	CO4	K3
b.	Write on types of secondary setabolites found in plants.	8	CO4	K31
	(OR)			
c.	Describe the production of secondary metabolites through tissue culture.	7	CO4	K2
d.	Give an account of specialized strategies for production of secondary metabolites.	8	CO4	K4

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