2053

B.E. (Biotechnology) Sixth Semester BIO-611: Recombinant DNA Technology

Time allowed: 3 Hours Max. Marks: 50

NOTE: Attempt <u>five</u> questions in all, including Question No. I which is compulsory and selecting two questions from each Section.

x-x-x

1. W	rite a	a short answer $(1*10=10)$)
	a)	Role of kinase enzyme	
	b)	Name any type-II molecular scissor	
	c)	Importance of promoter element	
	d)	cDNA is complementary to	
;	e)	Role of site directed mutagenesis	
	f)	Role of Thermal cycler	
	g)	Genetic modification in FlavrSavr tomato	
	h)	Role of CTAB in DNA isolation	
	i)	Importance of melting curve in RT-PCR	
	j)	Florescent entity used in DNA detection probe	
		Section- A	
2 a)	Ċom	pare PBR and pUC9 series of plasmids.	(6)
		e functional details of each component present in Ti plasmids.	(4)
		e a detailed note on DNA polymerase types.	(5)
		PCR-OLA works for disease diagnostics, explain with an example.	(5)
		te a note on BAC vectors. Give detailed comparison between BAC and YAC.	(7)
		and why temperature sensitive mutants are utilized for isolating phage DNA.	(3)
:		Section- B	
5 a)	Writ	te methodology of Sanger-Coulson method of DNA sequencing. Compare it with	
	meth		(5)
b)	Wha	t is Bt-cotton. Write in detail the process and outcome of this molecular manipul	
		(5	
		to study interacting proteins. Give account of different methodologies.	(5)
		ign a step wise experimental strategy to isolate and cloning "x" gene from hu	
ex	press	ion vector.	(5)
7 W	/rite	a note on followings	
		ification interference assay	
h)	Reon	ulation guidelines in Recombinant DNA work (5+5)	

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