S. P. College , Chandrapur MODEL EXAM- 2020
Recombinant DNA Technology
Microbiology Sem VI Paper I

Time : 3 hrs
Max Marks : 50
Note : All questions are compulsory and carry equal marks.

1		Describe different manipulative enzymes used in cloning.	10
		OR	
	a	Give characteristics of *E. coli* as a cloning vectors.	2 1/2
	b	Write short note on YAC.	2 1/2
	c	Write short note on pBR322 vector.	2 1/2
	d	Write a note on Ti plasmid	2 1/2
2		Discuss different methods of transfer of rDNA into host	10
		OR	
	a	Explain shot gun method of gene isolation.	2 1/2
	b	Write a note on Blue-White selection method	2 1/2
	c	Give the flow sheet diagram of Colony hybridization technique	2 1/2
	d	What is the use of homopolymer tailing technique	2 1/2
3		Discuss principle procedure and application of PCR.	10
		OR	
	a	Give difference between genomic and cDNA library	2 1/2
	b	Write a note on Automated DNA sequencing.	2 1/2
	c	Write the application of genomics	2 1/2
	d	Write a note on proteomics	2 1/2
4		Describe hybridoma technology. Give its application.	10
		OR	
	a	Write a note on Knockout mice	2 1/2
	b	Write a note on Bt cotton	2 1/2
	c	Write a note on DNA fingerprinting.	2 1/2
	d	Write short note on gene therapy.	2 1/2
5		Answer any 10	
	a	Give two selection markers present in pBR322 vector.	1
	b	Give two characteristics of ideal host.	1
	c	Define Shuttle vectors	1
	d	Which enzyme is used in homopolymer tailing	1
	e	Define linkers	1
	f	Define adaptors	1
	g	What is EST	1
	h	Enlist two method of DNA sequencing	1
	i	Give another name for DNA microarray	1
	j	What are vaccines? Give examples.	1
	k	Give applications of stem cells.	1
	l	Give two examples of GM food	1

----------**ALL THE BEST**----------