Q.P. Code :08746

[Time: 2½ Hours] **[Marks:60]**

Please check whether you have got the right question paper.

N.B:
1. **All** five questions are **compulsory**
2. **All questions carry equal marks**
3. **Illustrate wherever necessary**

Q 1.		What role does molecular biology play in identification of genomic targets and drug design? Explain giving examples.	**12**
		OR	
Q 1.	**a.**	Describe any two immune modulators and state their applications.	**6**
	b.	Describe the applications of therapeutic blood proteins.	**6**
Q 2.		Discuss giving examples the role of genetic engineering in Vaccine production.	**12**
		OR	
Q 2.	**a.**	Describe the method for isolation and purification of monoclonal antibodies.	**6**
	b.	Write a brief note on expression of scFV on the surface of bacteriophages.	**6**
Q 3.	**a.**	How are DNA probes used in epidemiology?	**6**
	b.	What is antisense technology? Discuss its role in analyzing gene function.	**6**
		OR	
Q 3.		Describe the techniques used for direct detection of duplications and insertions.	**12**
Q 4.		How do genes determine human behavior? Explain with examples.	**12**
		OR	
Q 4.		Describe in detail the various types of probiotics used.	**12**
Q 5.		Write short notes on **any three:**	**12**

a. Chemical Biology and Molecular Diversity
b. Live Dead Vaccines
c. Flow cytometry
d. Fluorescently Labelled DNA Sequencing
e. *L. monocytogenes* as delivery vehicle
f. Oligonucleotide Ligation.

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