

U.S.N.

# B.M.S. College of Engineering, Bengaluru-560019

Autonomous Institute Affiliated to VTU

## January 2024 Semester End Main Examinations

Programme: B.E.

Branch: Biotechnology

Course Code: 19BT7HSBFS

Course: Biotechnology for Society

Semester: VII

Duration: 3 hrs.

Max Marks: 100

**Instructions:** 1. Answer any FIVE full questions, choosing one full question from each unit.  
2. Missing data, if any, may be suitably assumed.

Important Note: Completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages. Revealing of identification, appeal to evaluator will be treated as malpractice.			<b>UNIT - I</b>	<b>CO</b>	<b>PO</b>	<b>Marks</b>
	1	a)	Provide examples of uses of biotechnology for society and explain each briefly	CO 1	PO 1,6	6
		b)	Genetic engineering is double edged sword. Justify this by writing advantages and limitations.	CO 1	PO 1,6	7
		c)	Provide historical development of biotechnology.	CO 1	PO 1,6	7
			<b>UNIT - II</b>			
	2	a)	Can we patent any biological or biotechnological product? List the examples of patentable or not patentable products.	CO 2	PO 6	10
		b)	What is GMF? Give suitable examples. write advantages and disadvantages.	CO 2	PO 6	10
			<b>UNIT-III</b>			
	3	a)	Argue for and against EUGENICS by listing various reasons and defining it.	CO 2	PO 6	10
		b)	Justify with reasons the importance of human genome project?	CO 2	PO 1,6	10
			<b>OR</b>			
	4	a)	Develop the procedure for genetic testing and various steps involved. What are different types of genetic testing.	CO 3	PO 1,6	10
		b)	What is bioethics? Provide suitable examples to explain bioethics.	CO 4	PO 1,6	10

		<b>UNIT-IV</b>			
5	a)	Identify the steps involved in therapeutic cloning? What are the ethical issues of therapeutic cloning?	<i>CO 4</i>	<i>PO 1,6</i>	<b>10</b>
	b)	Provide reasons for personal genomics.	<i>CO 1</i>	<i>PO 1,6</i>	<b>10</b>
		<b>OR</b>			
6	a)	What is IVF? How is it done?	<i>CO 1</i>	<i>PO 1,6</i>	<b>10</b>
	b)	Stem cells can be considered cure for everything. Argue for and against this statement by listing various stem cell types and their uses	<i>CO 1,4</i>	<i>PO 1,6</i>	<b>10</b>
		<b>UNIT - V</b>			
7	a)	What is bioprospecting and bio colonization. Explain each.	<i>CO 1,4</i>	<i>PO 1,6</i>	<b>10</b>
	b)	How biotechnology could be used for terrorism? Give suitable examples and explain.	<i>CO 1,4</i>	<i>PO 1,6</i>	<b>10</b>

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