

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

Autonomous Institute Affiliated to VTU

September / October 2023 Supplementary Examinations

Programme: B.E.

Branch: Biotechnology

Course Code: 19BT7DCBFS

Course: Biotechnology for Society

Semester: VII

Duration: 3 hrs.

Max Marks: 100

Date: 15.09.2023

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

UNIT - I

1. a) Recombinant DNA technology is both beneficial and harmful. Justify this statement by providing reasons. **10**
- b) List various milestones of the development of biotechnology with suitable examples. Explain briefly 3D bio-printing and biosensors. **10**

UNIT - II

2. a) List various types of banking related biological/life science research. Write on any three briefly. **10**
- b) Provide different methods of conventional breeding in plants and animals. Explain briefly any 3 from each category. **10**

UNIT - III

3. a) What is bioethics? What are the four major principles of bioethics? **10**
- b) Write pros and cons of eugenics? Why is it controversial? Provide various examples that took place in the name of eugenics. **10**

OR

4. a) Human genome study is the landmark achievement in biology. Provide milestones, objectives and benefits of human genome project. **10**
- b) What is genetic testing? List various types of genetic testing. What are the benefits of genetic testing? **10**

UNIT - IV

5. a) Outline the steps involved in IVF. Add a note on birth control pills. **10**
- b) What is immortality? How can it be achieved (methods)? Why immortality is not a good thing? **10**

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.

OR

6. a) Outline the process of designer baby's creation. Provide reasons that designer babies creation is not ethical. **10**
- b) What is personal genomics? How this can be done? List advantages and disadvantages of personal genomics. **10**

UNIT - V

7. a) Discuss the process of bio-prospecting and steps involved in it. List advantages and disadvantages. **10**
- b) Bioterrorism is the most feared by the governments. Justify this statement by giving various examples and case studies and its implications. **10**
