

**GUJARAT NATIONAL LAW UNIVERSITY
GANDHINAGAR**

Course: **Bio-Technology**
Semester- II (Batch: 2021-26)

End Semester Online Examination: May 2022

Date: 12th May, 2022

Duration: 8 hours

Max. Marks: 40

Instructions:

- The respective marks for each question are indicated in-line.
- Indicate correct question numbers in front of the answer.
- No questions or clarification can be sought during the exam period, answer as it is, giving reason, if any.
- Diagram/s shall be made with a pencil only.
- Word Limit: 10 Marks: 700-800 words, 5 Marks: 350-400 words.

	Marks
Q.1 Explain the Biochemical action of Glyphosate in plants. Add a note on glyphosate-resistant plants with examples.	(5)
Q.2 What is the Budapest treaty? What are the obligations and the timelines that have to be fulfilled/complied under this treaty, if an invention uses the biological material?	(5)
Q.3 What are terminator seeds? Explain the impact of the terminator gene with and without inducer on seeds.	(5)
Q.4 What are stem cells? Describe in brief the kinds of stem cell research that are covered under the National Guidelines for Stem Cell Research – 2017.	(5)
Q.5 Explain the term Bio-Safety Level (BSL) alongwith its types and their significance in setting up of a laboratory.	(10)
Q.6 What are transgenic animals and explain any one of the methods to create them. Briefly discuss the application of transgenic animals with examples, wherever necessary.	(10)
