

B. TECH.
(SEM-VII) THEORY EXAMINATION 2019-20
AGRICULTURE BIOTECHNOLOGY

Time: 3 Hours**Total Marks: 100****Note:** Attempt all Sections. If require any missing data; then choose suitably.**SECTION A**

1. **Attempt all questions in brief.** **2 x 10 = 20**
- a. Define agriculture biotechnology.
 - b. Define the term 'Transgenic'.
 - c. Give the names of two microorganisms useful in agriculture.
 - d. Draw a general chemical structure of an amino acid.
 - e. What is secondary metabolite?
 - f. Define bioremediation.
 - g. Name two transgenic plants.
 - h. What do you understand by germplasm preservation?
 - i. Give two significance of green house.
 - j. Why biopesticides are considered safe?

SECTION B

2. **Attempt any three of the following:** **10x3=30**
- a. Discuss the significance of biotechnology in agriculture.
 - b. Explain biodegradable polymers and their significance.
 - c. How essential amino acids are produced from micro algae?
 - d. How the genetic manipulation of a plant is achieved? Explain.
 - e. Comment on biofertilizer. <https://www.aktuonline.com>

SECTION C

3. **Attempt any one part of the following:** **10x1=10**
- a. Discuss the ethical issues related to transgenic plants.
 - b. Explain the role of microbes in agriculture.
4. **Attempt any one part of the following:** **10x1=10**
- a. How micropropagation is performed? Explain with an example.
 - b. Discuss the role of microorganisms in agrochemical industries.
5. **Attempt any one part of the following:** **10x1=10**
- a. How molecular markers assist in genetic engineering? Describe with an example.
 - b. Give a brief note on current advances in agriculture biotechnology.
6. **Attempt any one part of the following:** **10x1=10**
- a. Discuss biofungicides and its importance.
 - b. Elaborate the concept of novel animal farming strategies.
7. **Attempt any one part of the following:** **10x1=10**
- a. Describe the technique to produce secondary metabolite from plant.
 - b. Why biofertilizers are getting popularity? Comment.