No. of Printed Pages : **1**

21BTH4C11L

Sl. No.

M.Sc. IV Semester Degree Examination, October - 2023

BIOTECHNOLOGY

Plant Biotechnology

(NEP)

Time : 3 Hours Maximum Marks : 70

Note : *(i) Answer **any five** of the following questions with Question No. **1** (Q**1**) **compulsory**, each question carries **equal** marks.*

(ii) Draw neat diagrams wherever necessary.

1. Discuss the Plant Tissue Culture laboratory layout. Add note on sterilization techniques. **14**

2. Explain the various steps involved in micro propagation and regeneration plants. **14**

3. Give detailed account on *Agarobactrium* mediated transformation and its applications. **14**

4. Discuss the role of PCR in gene amplification and cloning of desired genes. **14**

5. Give a detailed account on production of vital proteins, antibodies and antigens in plants. **14**

6. Explain the detailed methodology of protoplast isolation and write a note on its applications. **14**

7. (a) Discuss particle gun bombardment plant transformation method **10**

(b) Write a note on organogenesis **4**

8. Write notes on :

(a) Somaclonal variations **5**

(b) Regulation of plant genome **5**

(c) Immobilized cell systems **4**

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