



**End Semester/Reappear (Semester I) Examination December 2022**

**Programme: B. Sc. (Hons.) Agriculture**

**Course: Fundamentals of Plant Biochemistry and Biotechnology**

**Course Code: 13A.106**

**Enrolment no. \_\_\_\_\_**

**Full Marks: 50**

**Time: 2 Hrs.**

**Section I**

**1. Short Answer type questions. Answer any four.**

**4 x 5 = 20**

- a. Describe briefly the structure and function of phospholipids.
- b. Explain the Michaelis and Menten and Line Weaver Burk equation briefly.
- c. Define micropropagation. Explain briefly the advantages of vegetative propagation.
- d. Explain Marker Assisted Breeding in crop improvement.
- e. Discuss the zwitterions nature of amino acids.
- f. What are molecular markers? Explain briefly their role in plant breeding.

**Section II**

**Long answer type questions. Answer any two.**

**2 x 15 = 30**

2. Describe the classification of proteins with suitable examples along with their structure.
3. Discuss the different forms of DNA along with main features of B-form of DNA.
4. Elucidate the basic requirements and techniques of plant tissue culture.
5. Explain marker assisted selection. Discuss briefly its role in crop improvements with suitable examples.

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