

[illegible]

**Total No. of Questions : 09**

**Paper ID : [F0243]**

**Max. Marks : 60**

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.**

**Q1. Define :**

- a) Micropropagation
- b) Somaclonal Variations
- c) Cryotherapy
- d) Virus Indexing
- e) Somatic embryos
- f) Protocorms
- g) Haploid plants
- h) Slow growth cultures
- i) Homozygous lines
- j) Freeze Preservation

### SECTION-B

- Q2. Write a note on large scale culture of plants.
- Q3. Discuss applications and limitations of Virus free stock.
- Q4. Write a note on Gametoclonal Variations.
- Q5. What are artificial seeds? Discuss their advantages and limitations.
- Q6. Write a note on Analytical breeding.

### SECTION-C

- Q7. Elaborate on the Molecular basis of Somaclonal variations. Discuss also their advantages and limitations.
- Q8. Write in detail about Embryo Rescue and its importance in Plant biotechnology.
- Q9. Discuss strategies for Germplasm Conservation. List its advantages and limitations.