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Total No. of Pages : 02

Total No. of Questions : 09

M.Sc.(BT) (2011 to 2017) (Sem.-3)

**PLANT TISSUE CULTURE**

Subject Code : MSBT-207

M.Code : 15021

Time : 3 Hrs.

Max. Marks : 60

**INSTRUCTIONS TO CANDIDATES :**

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.

**SECTION-A**

**1. Answer briefly :**

- a. Define Organogenesis.
- b. Differentiate cybrids from hybrids.
- c. What do you mean by transgenic plants?
- d. What is meant by Embryo rescue?
- e. Explain Ti and Ri plasmid.
- f. Define Suspension Culture.
- g. Explain in brief antifungal protein.
- h. Explain biodegradable plastic.
- i. Differentiate bar and barnase system.
- j. Define Transgenic plants.

### SECTION-B

2. Give a-brief account on-composition of plant tissue culture medium.
3. Write a detailed account on suspension culture.
4. Discuss Chloroplast Transformation and its success with reference to potato
5. Discuss the role of Plant tissue culture in production of abiotic resistance in crop plants.
6. Describe methods for viral resistance production in crop plants.

### SECTION-C

7. Give a detailed account on methods of gene transfer in crop plants.
8. Discuss role of plant tissue culture in secondary metabolite production.
9. Explain in detail :
  - a. Molecular farming
  - b. Gene Silencing

**NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.**