

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

B.Tech. (Bio Technology) (Sem.-6)

PLANT BIOTECHNOLOGY

Subject Code : BTBT602/18

M.Code : 79668

Date of Examination : 09-07-22

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. Write briefly :

- a) What is hybrid vigor?
- b) What is clonal selection in conventional hybridization?
- c) Difference between plasticity and totipotency.
- d) What are somaclonal variations?
- e) What is wet sterilization and for which type of things it is used?
- f) Why is T-DNA mentioned by this name?
- g) Define transplastomics.
- h) What are reporter genes?
- i) What are Plantibodies?
- j) What are Biofuels?

SECTION-B

2. Discuss the role of selection and Polyploidy in crop improvement.
3. Discuss the pathways for in vitro regeneration.
4. Define micropropagation and mention its applications.
5. Discuss the Biolistic method of direct gene transfer and its advantages.
6. How are plants used as production source for peptide hormones?

SECTION-C

7. Discuss the marker assisted plant breeding and selection? Mention its advantages and disadvantages.
8. Discuss the methods of isolation, culture and regeneration of protoplast and fusion of protoplasts.
9. Discuss the molecular mechanism of T-DNA transfer in plants and how are *Ti* plasmids modified into vector for transformation.

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.