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Total No. of Pages : 02

Total No. of Questions : 18

B.Tech.(Bio Technology) (2012 Onwards) (Sem.-6)**PLANT BIOTECHNOLOGY**

Subject Code : BTBT-602

M.Code : 71073

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTION 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**Answer briefly :**

1. Give the name of any two medium used in plant tissue culture.
2. What are haploid plants?
3. What is difference between a callus culture and a suspension culture?
4. Which plasmid vector is used in transformation of plant cells?
5. What is organogenesis?
6. What are molecular markers?
7. What are bioplastics? Are they better than normal plastics? How?
8. What are edible vaccines?
9. Give the name of any pest resistant crop.
10. What are transposons?

SECTION-B

11. What are somatic embryos?
12. Explain the genome composition in chloroplast. How genetic manipulation in its genome affects plant productivity?
13. What are plant growth regulators? Give their role in plant tissue culture.
14. What are the different stages of micropropagation?
15. What is totipotency? Give its role in development of plant transgenics.

SECTION-C

16. Write short on **any two** :
 - a) Biosynthetic pathways manipulation and its significance
 - b) Pesticide resistant plants
 - c) Cytoplasmic male sterility
 - d) GMO crops
17. Explains different methods for direct transformation in plant cells.
18. What are secondary metabolites? Which culture techniques are employed for their production in plant cells?

NOTE : Disclosure of identity by writing mobile number or making passing request on any page of Answer sheet will lead to UMC against the Student.