GIET UNIVERSITY, GUNUPUR – 765022

RN19MSC042

Roll No: | | | | | | |

Total Number of Pages : 2 AR-18 M. Sc

M.Sc 3rd SEMESTER REGULAR EXAMINATIONS, NOV/DEC 2019-20

Subject code: III.4

Subject: PLANT BIOTECHNOLOGY

Time: 2 Hours Max Marks: 40

The figures in the right hand margin indicate marks.

Answer any **FOUR** questions [4 x 10 = 40]

1. Explain in detail about 'surface sterilization of explants'.
2. Write the methods of protoplast isolation and culture
3. (a) Give a brief account on 'Ti- plasmids'.
   (b) Write a short note on '*cry* genes'.
4. Describe in detail the terminator seed technology
5. Describe the process of initiation and maintenance of callus culture.
6. Somaclonal variation can be induced in plants for crop improvement. Explain with an example.
7. Why *Agrobacterium* is called as natural genetic engineers? Discuss the process of 'T-DNA' transfer from *Agrobactrium tumifaciens* to plant cells.
8. Describe the various strategies for production of herbicide resistance transgenic plants.

---End of Paper---