

D 51718

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Name

Reg. No.....

**THIRD SEMESTER M.Sc. DEGREE EXAMINATION
DECEMBER 2013**

(CUCSS)

General Biotechnology

GB 3C3 – PLANT BIOTECHNOLOGY

Time : Three Hours

Maximum : 36 Weightage

Section A

*Answers **all** questions.*

1. PR protein.
2. FLAVAR SAVER Tomato.
3. Ri plasmid.
4. Hairy root culture.
5. Cybrid.
6. Synseed.
7. Totipotency.
8. Meristoid.
9. Chimeras.
10. Sodium hypochlorite.

(10 x 1 = 10 weightage)

Section B

*Answer any **seven** questions.*

11. What is somatic embryo? Discuss the application of somatic embryo genesis.
12. Discuss the commercial perspectives of micro-propagation.
13. Discuss the possible modes of germ plasma conservation.
14. What is immobilization? Explain the application of immobilized plant cells.
15. Give a brief account on mutational breeding in plant tissue culture.
16. Give an account on strong plant promoters.

Turn over

17. Explain Herbicide resistance through plant transformation.
18. Explain the structure and function of binary and co-integrate vectors.
19. Describe how can we increase shelf life of fruits and flowers.
20. Explain different gene transfer mechanisms in plant.

(7 x 2 = 14 weightage)

Section C

*Answer any **two** questions.*

21. Explain different methods for haploid production and its applications in plant breeding.
22. Describe the production, isolation and purification of protoplast and its application in Agronomy.
23. Write an essay on plant secondary metabolite production through tissue culture.

(2 x 6 = 12 weightage)