

D 4169

(Pages : 2)

Name.....

Reg. No.....

THIRD SEMESTER M.Sc. DEGREE EXAMINATION, FEBRUARY 2008

General Biotechnology

GBT 213—PLANT TISSUE CULTURE

Time : Three Hours

Maximum : 80 Marks

Section A

*Answer any **two** questions.*

Each question carries 10 marks.

1. Write an essay on somatic hybridization.
2. Give an account on the role of plant growth regulators *in vitro* studies.
3. Explain the stages in and factors affecting **micropropagation**. Add a note on commercial application of **micropropagation**.

(2 x 10 = 20 marks)

Section B

*Answer any **ten** questions.*

Each question carries 5 marks.

4. Compare and contrast somatic embryos *vs.* zygotic embryos.
5. Enumerate the factors affecting **androgenesis**.
6. How do you culture ovules and ovary *in vitro* ?
7. Explain **explant** sterilization procedures.
8. Give an account on **cryopreservation**.
9. Discuss the role of immobilization process in plant cell culture.
10. How do you synthesize **synseeds** ?
11. Explain the importance of nurse culture.
12. Explain the stages in and factors affecting somatic **embryogenesis**.
13. Discuss commercial perspectives of **micropropagation**.
14. Give an account on historical events in the development of plant tissue culture.
15. Explain the nutrient composition of **Murashige** and Skoog culture medium.

(10 x 5 = 50 marks)

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Section C

*Answer **all** questions.*

*Each question carries **2** marks.*

16. Endopolyploidy.
17. Vitrification.
18. Cybridization.
19. Microcalli.
20. Role of suspensor.

(5 x 2 = 10 marks)