

D 70951

(Pages : 2)

Name.....

Reg. No.....

**THIRD SEMESTER M.Sc. DEGREE (REGULAR) EXAMINATION
NOVEMBER 2019**

General Biotechnology

GB3C3—PLANT BIOTECHNOLOGY

Time : Three Hours

Maximum : 36 Weightage

Section A

Answer all questions.

Each question carries a weightage of 1.

- | | |
|-----------------------|---------------------------|
| 1. Yeast extract. | 2. Liquid culture. |
| 3. Organ culture. | 4. In vitro pollination. |
| 5. Endosperm culture. | 6. E.coli based vectors. |
| 7. Cryopreservation. | 8. Assymetric hybrid. |
| 9. Microprojectile. | 10. Antibiotic selection. |

(10 × 1 = 10 weightage)

Section B

Answer any seven questions.

Each question carries a weightage of 2.

11. Browning.
12. Genetic stability assessment.
13. Callus culture.
14. Somaclones.
15. Secondary metabolite production.
16. Cell viability measurement.
17. *In vitro* germplasm conservation.
18. Binary v/s cointegrate vectors in *A. Tumefaciens*.
19. *E.coli* based vectors.
20. Gus.

(7 × 2 = 14 weightage)

Turn over

Section C

*Answer any **two** questions.*

Each question carries a weightage of 6.

21. Explain agrobacterium mediated transformation of plant cells.
22. Describe the callus regeneration pathway of regeneration and its merits and demerits.
23. Explain the pathway of somatic embryogenesis and its application.

(2 × 6 = 12 marks)