

CSSR & SRRM DEGREE & PG COLLEGE

(AUTONOMOUS)

UG (CBCS) REGULAR EXAMINATIONS, OCT- 2025

B.Sc(Bot), SEMESTER-III

MAJOR: PLANT BIOTECHNOLOGY

(w.e.f. 2024-25 Admitted Batch)

Time: 3 hrs.

(No additional sheet will be supplied)

Max. Marks: 70

SECTION-A

I. Answer any FIVE questions. Each Question Carries 4 Marks

5 X 4 =20 M

1. Totipotency
2. Organogenesis
3. Advantages and disadvantages of Micropropagation
4. Application of Endosperm culture
5. Bioreactors in production of secondary metabolites
6. Protoplast culture methods
7. FLAVR-SAVR TOMATO
8. PR Proteins
9. Genetically modified foods
10. Applications of polyhydroxybutyrate

SECTION – B

II. Answer All questions. Each Question Carries 10 Marks

5 X 10 =50 M

11. What is Somatic Embryogenesis? Explain the procedure for induction of somatic embryogenesis?

Or

12. What is callus culture? Explain the procedure for initiation and maintenance of callus culture?

13. What is Meristem culture? Explain the procedure involved in meristem culture?

Or

14. Write an essay on pollen culture or androgenic haploid production?

15. Write an essay on cell suspension culture?

Or

16. Describe various aspects of somatic hybridization?

17. Write an essay on Herbicide resistance to Glyphosphate?

Or

18. Give an account of Introduction to virus resistance nucleocapsid genes?

19. Give an account of Biodegradable plastic

Or

20. Write an essay on Biofortification?

