

S.No. 3104

16 SCCBT 5

(For candidates admitted from 2016–2021 batch)

B.Sc. DEGREE EXAMINATION, NOVEMBER 2023.

Part III — Biotechnology — Major

PLANT BIOTECHNOLOGY

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20)

Answer ALL Questions

1. Triploids
2. Somatic embryogenesis
3. Endosperm
4. Protoplast
5. Cybrids
6. Bt toxin
7. Bioreactor
8. GMO
9. Biofertilizers
10. Monosodium glutamate

SECTION B — (5 × 5 = 25)

Answer ALL Questions, Choosing either (a) or (b)

11. (a) Write about haploids and their applications.

Or

- (b) Write a note on somaclonal variations.

12. (a) Give the importance of genetic engineering in plants.

Or

- (b) Give the applications of somatic hybridization.

13. (a) What are the applications of crop improvement?

Or

- (b) Comment on insect resistance in plants.

14. (a) Give the pros and cons of GM foods.

Or

- (b) Explain GMO crops with an example.

15. (a) How to identify organic foods?

Or

- (b) Write brief note on organic farming.

SECTION C — (3 × 10 = 30)

Answer any THREE questions

16. What is plant tissue culture? Explain the culture of embryo and its applications.

17. How protoplasts are used in genetic manipulation of plants?

18. Write a detailed note on Plant as bioreactors.

19. Discuss on application, ecological impact and future aspects of transgenic plants.

20. What are preservatives? Give its applications, importance and limitations.