

20. Write are preservatives? Give its applications, importance and limitations.
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S.No. 5088

16 SCCBT 5

(For candidates admitted from 2016–2017 onwards)

B.Sc. DEGREE EXAMINATION, APRIL 2022.

Part III – Biotechnology – Major

PLANT BIOTECHNOLOGY

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20 Marks)

Answer ALL the questions.

1. Somatic embryogenesis
2. Haploids
3. PEG
4. Protoplast
5. Herbicide tolerance
6. Electroporation
7. Glyphosate
8. Transduction

9. Food additives

10. Organic foods

SECTION B — ($5 \times 5 = 25$ Marks)

Answer ALL questions, choosing either (a) or (b).

11. (a) Explain organogenesis.

Or

(b) Write short note on somaclonal variation.

12. (a) Write about the applications of somatic hybridization.

Or

(b) Write the importance of tissue culture in genetic manipulation.

13. (a) Write briefly on viral resistance.

Or

(b) What are the applications of genetic engineering?

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

Or

(b) Give the applications of transgenic plants.

15. (a) How to produce organic foods?

Or

(b) Explain the steps involved to identify organic foods.

SECTION C — ($3 \times 10 = 30$ Marks)

Answer any THREE questions.

16. Provide an elaborative note on the following :

(a) Endosperm culture

(b) Triploids production and its significance.

17. Explain the methods of protoplast fusion in detail.

18. Write a detailed note on Plant as bioreactors.

19. Comment on methods involved in gene delivery.