

C 20528

(Pages : 2)

Name.....

Reg. No.....

SIXTH SEMESTER U.G. DEGREE EXAMINATION, MARCH 2022

(CBCSS—UG)

Biotechnology

BTY 6B 13—PLANT BIOTECHNOLOGY

(2019 Admissions)

Time : Two Hours

Maximum : 60 Marks

Section A (Short Answer Type Questions)*Answer at least eight questions.**Each question carries 3 marks.**All questions can be attended.**Overall Ceiling 24.*

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|----------------------------|----------------------------|
| 1. Synthetic seed | 2. Embryo rescue. |
| 3. Meristem culture. | 4. Surface sterilization. |
| 5. Slow growth cultures. | 6. Hairy root culture. |
| 7. PR protein. | 8. Co integrate vector. |
| 9. Cytokinin. | 10. Chemofusion. |
| 11. Distant hybridization. | 12. Greenhouse technology. |

(S × 3 = 24 marks)

Section B (Paragraph Type Questions)*Answer at least five questions.**Each question carries 5 marks.**All questions can be attended.**Overall Ceiling 25.*

13. Explain the role of growth regulators in the medium.
14. Describe the methods for isolation of protoplast.
15. What is Somaclonal variation and explain its application in plant breeding.
16. Explain mechanism of plant gene transfer through viral vectors.

Turn over

40

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17. Brief account on germplasm conservation.
18. Describe the stages of callus culture and application of callus culture.
19. Explain application of plant tissue culture.

(5 × 5 = 25 marks)

Section C (Essay Type Questions)

Answer any **one** questions.

It carries 11 marks.

20. Write an essay on haploid production and its application in plant breeding.
21. Explain different gene transfer methods in plants and how herbicide resistance developed in plants.

(1 × 11 = 11 marks)