



QP CODE: 24000607



Reg No : .....

Name : .....

**B.Sc DEGREE (CBCS) REGULAR / REAPPEARANCE EXAMINATIONS, MARCH 2024**

**Sixth Semester**

B.Sc Biotechnology Model III

**CORE COURSE - BT6CRT15 - PLANT BIOTECHNOLOGY**

2017 Admission Onwards

B26D8783

Time: 3 Hours

Max. Marks : 60

**Part A**

*Answer any **ten** questions.*

*Each question carries **1** mark.*

1. Write about different types of Laminar Air Flow chamber.
2. List out the steps for green house making.
3. Differentiate defined and undefined media.
4. Any two gelling agents used in plant tissue culture media.
5. What is totipotency?
6. Differentiate hard callus and friable callus.
7. What are the two uses of somaclonal variation?
8. Mention about fusogens.
9. Define cytoplasm.
10. Define germplasm storage .
11. Discuss about Cry genes.
12. Explain about Ti plasmid.

(10×1=10)

**Part B**

*Answer any **six** questions.*

*Each question carries **5** marks.*

13. Note down the important milestones in plant tissue culture.
14. Explain the phenomenon of acclimatization after tissue culture.





15. Write a short note on cytokinin.
16. Explain the procedure for somatic embryogenesis.
17. Write a note on the production of artificial seeds.
18. Define meristem culture.
19. Discuss applications and limitation of germplasm conservation.
20. Differentiate co culture with tissue explant and in planta transformation.
21. Illustrate about binary vectors.

(6×5=30)

### Part C

Answer any **two** questions.

Each question carries **10** marks.

22. What is the application of micropropagation? Describe the various stages of micropropagation and discuss the factors influencing of micropropagation.
23. Explain ovary and ovule culture and its applications.
24. List out Application of somatic Hybridization.
25. Interpret the different gene transfer techniques for plant transformation.

(2×10=20)

