



**QP CODE: 20100428**

**Reg No** : .....

**Name** : .....

**BSc DEGREE (CBCS) EXAMINATION, MARCH 2020**

**Sixth Semester**

B.Sc Biotechnology Model III

**Core course - BT6CRT15 - PLANT BIOTECHNOLOGY**

2017 Admission Onwards

2F02F042

Time: 3 Hours

Maximum Marks :60

**Part A**

*Answer any **ten** questions.*

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

1. Mention about surface sterilization procedure.
2. Why green houses are an important facility for plant tissue culture ?
3. What is culture medium?
4. What is the role of plant hormone?
5. What are the stages of micropropagation?
6. Differentiate hard callus and friable callus.
7. State the steps of meristem culture.
8. Define cybrid.
9. List any two application of enzymatic isolation of protoplast.
10. Define cDNA library.
11. Discuss in Planta transformation.
12. Differentiate co integrate and binary vector system.

(10×1=10)



### Part B

*Answer any **six** questions.*

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

13. Examine the contributions of Gottlieb Haberlandt.
14. Use of autoclave ,working table and distillation plant in plant tissue culture lab.
15. Explain the role of physical factors on vascular differentiation.
16. Explain the application of somaclonal variation.
17. Explain the two approaches of oraganogenesis.
18. Describe the procedure of anther culture
19. Compare mechanical and enzymatic isolation of protoplast
20. Illustrate the herbicide resistance in transgenic plants.
21. Examine the viral vectors used for plant transgenics.

(6×5=30)

### Part C

*Answer any **two** questions.*

*Each question carries **10** marks.*

22. Explain the preparation of plant tissue culture medium. How a medium can be standardised for plant regeneration?
23. Explain the types, uses and advantages of artificial seeds.
24. Discuss on Maintenance and storage of plant cells.
25. Sketch the role of TDNA of Agrobacterium in genetransfer.

(2×10=20)

