



QP CODE: 25047376



25047376

Reg No :

Name :

M.Sc DEGREE (CSS) EXAMINATION, NOVEMBER 2025

Third Semester

M Sc BIOTECHNOLOGY

Core Course - BT020304 - PLANT AND ANIMAL BIOTECHNOLOGY

2019 ADMISSION ONWARDS

2FFC12E6

Time: 3 Hours

Weightage: 30

Part A (Short Answer Questions)

*Answer any **eight** questions.*

*Weight **1** each.*

1. Point out the advantages and disadvantages of serum in animal cell culture media.
2. What is the purpose of cell cloning?
3. What is meant by transgenic animal?
4. Explain explant.
5. What is endomitosis?
6. Explain Rice actin 1 promoter.
7. What is transgene expression?
8. Write the importance of protoplast and their culture.
9. What is RIP?
10. Write a short note on plant secondary metabolites.

(8×1=8 weightage)

Part B (Short Essay/Problems)

*Answer any **six** questions.*

*Weight **2** each.*

11. Differentiate between monolayer culture and suspension culture.
12. Write on Tissue engineered skin.
13. Briefly state the procedure for callus culture and suspension culture.
14. Write down the applications of micropropagation.
15. Elaborate applications of Ri plasmid.





16. What are the different types of direct DNA transfer methods in plants.
17. Outline different methods of chloroplast transformation.
18. Discuss the role of plant transformation in developing herbicide resistance in plants.

(6×2=12 weightage)

Part C (Essay Type Questions)

*Answer any **two** questions.*

Weight 5 each.

19. Write an essay on stem cell culture.
20. Discuss important applications of animal cell culture technology.
21. Write an essay on Organ culture of plants.
22. Explain different methods of nuclear transformation in plants.

(2×5=10 weightage)

