



QP CODE: 25022349



Reg No : .....

Name : .....

**M.Sc DEGREE (CSS) SPECIAL REAPPEARANCE EXAMINATION, APRIL 2025**

**Third Semester**

M.Sc BIOTECHNOLOGY

**CORE - BT020304 - PLANT AND ANIMAL BIOTECHNOLOGY**

2019 ADMISSION ONWARDS

C38B2080

Time: 3 Hours

Weightage: 30

**Part A (Short Answer Questions)**

*Answer any **eight** questions.*

*Weight **1** each.*

1. What is filter sterilization?
2. Discuss production of vaccines and animal cell culture.
3. What is meant by transgenic animal?
4. Name and explain any four plant tissue culture media.
5. Explain artificial seeds.
6. Write short note on *Agrobacterium tumefaciens*.
7. What is particle bombardment.
8. Explain the chromosome status of somatic hybrids.
9. Describe the principles of cryopreservation.
10. Write on alpha amylase inhibitors and insect resistance with example.

(8×1=8 weightage)

**Part B (Short Essay/Problems)**

*Answer any **six** questions.*

*Weight **2** each.*

11. Discuss the advantages and disadvantages of serum free media.
12. Demonstrate the use of cell culture for in vitro testing of drugs
13. Describe the protocol for explant sterilisation.
14. Justify the use of meristem culture for the production of virus free plants.
15. Write short note on gene silencing in plants.





16. What are the three main steps involved in the construction of a transgene?
17. Explain coat protein mediated virus resistance in plants.
18. Write a note on production of plantibodies and their importance.

(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. Write an essay on cell cloning in animal cell culture.
21. Write an essay on Organ culture of plants.
22. Discuss in detail about Vector-less gene transfer methods in plants.

(2×5=10 weightage)

