

**SHRIMATHI DEVKUNVAR NANALAL BHATT VAISHNAV COLLEGE FOR WOMEN
(AUTONOMOUS)**

**(Affiliated to the University of Madras and Re-accredited with 'A+' Grade by NAAC)
Chromepet, Chennai — 600 044.**

M.Sc. - END SEMESTER EXAMINATIONS APRIL - 2022

SEMESTER - IV

20PPBCT4009 - Plant Biotechnology

Total Duration : 3 Hrs.

Total Marks : 60

Section A

Answer any **SIX** questions ($6 \times 5 = 30$ Marks)

1. Describe the procedure sterilization.
2. Write an notes on recombinant insulin production.
3. Define biosensors. Mention types of biosensors.
4. Describe the steps in the preparation of citric acid.
5. Explain the production process of cheese.
6. Define patent. Write the procedure on the patenting.
7. Explain the microbial production of penicillin.
8. Describe the airlift bioreactors.

Section B

Part A

Answer any **TWO** questions ($2 \times 10 = 20$ Marks)

9. Describe the secondary metabolites products by microbial.
10. Write an essay on the enzyme technology.
11. Write an notes on microbial production of ethanol and acetone.
12. Write an essay on the intellectual property rights.

Part B

Compulsory question ($1 \times 10 = 10$ Marks)

13. Explain the stirred tank bioreactors with diagram.
