

Roll.No.

24PPBCT3008

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. PBPBT - END SEMESTER EXAMINATIONS - NOVEMBER 2025
SEMESTER - III

24PPBCT3008 -Plant Tissue Culture and Biotechnology

Total Duration : 2 Hrs. 30 Mins.

Total Marks : 60

Section B

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

1. Discuss the historical development of plant tissue culture from Haberlandt (1902) to modern micropropagation.
2. Describe the steps involved in protoplast isolation.
3. State the practical applications of synthetic seeds.
4. What is Agrobacterium-mediated transformation?
5. Write notes on Institutional Bio - safety committee.
6. Write short notes on composition of MS medium.
7. Explain the Western Blotting technique.
8. Discuss the methods of enzyme purification.

Section C

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

9. Discuss the various sterilization techniques in plant tissue culture.
10. Describe the process of plant cell culture for secondary metabolite production.
11. Distinguish between direct and indirect methods of gene transfer in plants.
12. Write an essay on intellectual property right.

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

13. Write an account of various types of bioreactors.
