

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. (PBPB) END SEMESTER EXAMINATIONS NOVEMBER - 2023

SEMESTER - III

20PPBCT3008 - Plant Tissue Culture

Total Duration : 2 Hrs. 30 Mins.

Total Marks : 60

Section B

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

1. Describe the milestones in tissue culture of plants.
2. Explain somatic embryogenesis.
3. Classify and explain isolation and culture of protoplast.
4. Describe and explain protoplast as a tool in biotechnology.
5. Explain micro nutrients, its significance and role in growth of plants in *in vitro* condition.
6. Prepare a flow chart and explain callus culture.
7. Describe the use of bioreactors.
8. Determine the possibilities of meristem culture in the production of virus free plants.

Section C

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

9. Describe the sterilization procedures in plant tissue culture.
10. Prepare a flow chart and explain the types of media in tissue culture.
11. Determine and explain the explants for tissue culture.
12. Describe and determine the somatic cell hybridization.

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

13. Determine how secondary metabolites are produced.
