

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.

B.Sc. (PBPBT) END SEMESTER EXAMINATIONS APRIL-2023

SEMESTER - VI

**20UPBCT6013 - Plant Biotechnology**

Total Duration : 2 Hrs 30 Mins.

Total Marks : 60

### Section B

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

1. Explain the major types of media used in plant tissue culture.
2. Briefly explain a method to prepare synthetic seeds.
3. How will you prepare embryo culture and add a note on its structure.
4. With suitable example explain the shoot culture and its uses.
5. Briefly explain the bacterial single cell protein with examples.
6. Explain the batch culture preparation in detail.
7. Describe alkaloid production through transgenic methods.
8. Ascertain the vaccine production studied by you.

### Section C

Answer any **THREE** questions ( $3 \times 10 = 30$  Marks)

9. Explain the techniques of sterilisation in PTC.
10. Write an essay on preparation of protoplast fusion.
11. Describe the steps involved in productions of haploids.
12. Explain the preparation of Mass cultivation of *Rhizobium*
13. Compare the c3 and c4 plants and describe the conversion of Photosystems C3 to C4.

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