

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 APRIL - 2024

SEMESTER - IV

**20PPBCT4010 - Plant Physiology and Biochemistry**

Total Duration : 2 Hrs. 30 Mins.

Total Marks : 60

### Section B

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

1. Define the effect of Gibberellin on growth and development of plants.
2. Give an account on classification of carbohydrates.
3. Write a short note on  $C_3$  cycle.
4. Explain the process of  $\beta$ -oxidation in fatty acid catabolism.
5. Describe the chemical nature of  $\alpha$ -helix &  $\beta$ -sheet in protein secondary structure.
6. Prepare a comprehensive report on properties of enzymes in brief.
7. Discuss the conformation changes of phytochromes and its responses in plant growth in details.
8. Gluconeogenesis is the opposite process of glycolysis - Justify.

### Section C

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

9. Write an essay on physiological actions of Auxin in details.
10. Write an account on biosynthesis of terpenoids by mevalonic acid pathway.
11. Infer the relationship between  $V_{max}$  &  $K_m$  expressed by Michaelis & Menten.
12.  $C_4$  plants are efficient group in photosynthesis – Justify.

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

13. Ascertain the significances of glycolysis in respiration and plant function.

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