

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 - 2024

SEMESTER -VI

**20UPBCT6012 -Plant Physiology, Biochemistry and Biophysics**

Total Duration : 2 Hrs. 30 Mins.

Total Marks : 60

### Section B

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

1. Illustrate Z scheme of light reaction.
2. Differentiate between aerobic respiration and anaerobic respiration.
3. List the functions of auxins in the growth of plants.
4. List the factors influencing enzyme action.
5. Define the following: enthalpy, entropy and bioenergetics.
6. Explain Michaelis-Menten constant.
7. Describe the phenomenon that occurs when oxygen slows down glycolysis in cells and suppresses lactate accumulation.
8. Examine the biochemical process in which atmospheric nitrogen is converted into ammonia.

### Section C

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

9. Compare and contrast between C3 cycle and C4 cycle.
10. Prepare the step wise process of TCA cycle indicating the enzymes involved and energy yield.
11. List the functions of Gibberellins and Cytokinins in growth of plants.
12. Classify the enzymes with suitable examples.
13. Explain the third law of thermodynamics citing its significances.

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