



**Continuous Internal Assessment –II October 2024**

**V Semester**

**Class: III UG**  
**Branch: Botany**

**Time :2 Hours**  
**Max. Marks: 60**

**21BBOC16 Plant Physiology and Biometrics**

**Course Outcomes:**

- CO1** :Understand the various functions of plants.  
**CO2**: Gain knowledge about the various aspects of physiological processes in plants  
**CO3**: Gain knowledge on biochemical and metabolic aspects of plants  
**CO4**: To study the hormonal and induction patterns in plants  
**CO5**: Understand the physiology behind flowering and fruiting  
**CO6**: Knowledge on methods of data collection and the application of statistics in solving biological problems.

**Part A**

**6 x 1 =6**

**Choose the Correct Answer**

- FAD is reduced in which of the reaction of the Kreb's cycle?  
a. Isocitrate to oxaloacetate                      b. Succinyl CoA to Succinate                      CO3 K2  
c. Fumarate to malate                                      d. Succinate to fumarate
- The RQ value of protein                                      CO3 K1  
a. More than one                      b. Unity                      c. Less than one                      d. Zero
- Apical Dominance is due to                                      CO4 K2  
a. Absiccic acid                      b. Gibberllic acid                      c. Auxins                      d. Cytokinin
- In plants, photoperiodic stimulus is perceived by                      CO5 K2  
a. leaves                      b. stem apex                      c. roots                      d. lateral meristem
- The movement of plant organs in response to the source of light is called                      CO5 K2  
a. Geotropism                      b. Phototropism                      c. Hydrotropism                      d. Thigmotropism
- Group of individuals taken for the study in Biostatistics                      CO6 K2  
a. Flock                      b. Population                      c. Block                      d. Group

**Part B**

**3 x 6 = 18**

**Answer ALL questions**

**Each answer should not exceed 400 words or two pages**

- a. Draw Pentose phosphate pathway. No description is required                      CO3 K3  
(or)
- b. Give an account on Respiratory Quotient                      CO3 K4
- a. Distinguish between Short Day Plants and Long Day Plants                      CO4 K1  
(or)
- b. What are tropic and nastic movements?                      CO5 K2
- a. Explain the sources of Data collection                      CO6 K2  
(or)
- b. Write a short note on Pie chart with an example                      CO6 K2

**Part C**

**3 x 12 = 36**

**Answer ALL questions**

**Each answer should not exceed 800 words or four pages**

- a. Explain the steps in detail in Krebs Cycle and enumerate its Significance                      CO3 K2  
(or)
- b. Enumerate the physiological effects of Auxins and Gibberlins                      CO4 K2
- a. Give detailed account on the mechanism of Photoperiodism and mention its significance.                      CO4 K1  
(or)
- b. What is Vernalization. Discuss the mechanism and its practical Utility                      CO5 K3
- a. Give an account on the graphical representation of data                      CO6 K4  
(or)
- b. Compute the average marks of the following data                      CO6 K1

Marks	0-10	10-20	20-30	30-40	40-50
No. of students	3	22	35	30	10