



End Semester/Reappear (Semester II) Examination May 2025

Programme: B. Sc. (Hons.) Agriculture
Course: Fundamentals of Crop Physiology
Course Code: 13A.154
Enrolment no. _____

Full Marks: 50
Time: 2 Hrs.

Q.No.	Questions	CO	Bloom Taxonomy Category	Marks
Section I				
1	Short Answer type questions.			4 x 5 = 20
a	Compare diffusion and osmosis by explaining how they are different with examples from plants.	CO1	Understand	
	or			
b	Draw a labeled diagram of a plant cell and briefly describe the function of any three organelles.	CO1	Apply	
	Apply your understanding of the link reaction to explain how pyruvate from glycolysis is converted for entry into the TCA cycle.	CO2	Apply	
	or			
c	Compare between aerobic and anaerobic respiration with examples.	CO2	Understand	
	or			
d	Discuss active and passive nutrient uptake in plant. Give one example for each.	CO1	Understand	
	or			
d	Draw a well labeled diagram of chloroplast and write their functions.	CO1	Apply	
	or			
d	Define plant growth and outline the key phases involved in the growth process of plants.	CO1	Remember	
	or			
d	Describe the role of auxins in plant growth and development.	CO1	Understand	
	or			
Section II				
Long Answer type questions.				2 x 15 = 30
2	Discuss the major type of plant hormones. Also explain why winter varieties, when planted in spring do not produce flowers or mature grains within the span of a flowering season	CO1	Analyze	15
	or			
3	Analyse the discovery and physiological effects of gibberellins by identifying the key events leading to their identification and examining how their roles influence various plant growth processes.	CO1	Analyze	15
	or			
3	Analyse the processes of oxidative photo phosphorylation and direct photo phosphorylation in terms of their mechanisms, energy sources, and biological significance. How do these differences impact their roles in cellular metabolism?	CO2	Analyze	15
	or			
3	Describe the structure and function of the mitochondrial electron transport chain. Evaluate how it contributes to ATP synthesis.	CO2	Evaluate	15
	or			

Course Outcome:

At the end of the Course, the students will be able to-

CO1 Explain the factors responsible for plant development and growth.

CO2 Judge the different metabolic process in plants and its effects.