

School of Basic Sciences

Department of Basic Sciences

Mid Term Examination

Exam Date: 27 Sep 2023

Time : 90 Minutes

Marks : 50

Sem V - C2UE503B - Plant Physiology and Metabolism

Your answer should be specific to the question asked

Draw neat labeled diagrams wherever necessary

- 1) Explain the concept of stomatal conductance and its relationship with water availability. K2 (2)
- 2) What is the cohesion-tension theory, and how does it explain water movement in plants? K1 (3)
- 3) Explain the function of plant aquaporins in water transport. K2 (4)
- 4) How do plants absorb and transport minerals from the soil? K2 (6)
- 5) How do plants respond to drought stress at the biochemical level? K3 (6)
- 6) Describe the structure and function of chloroplasts in plant cells. K3 (9)
- 7) Discuss the mechanisms by which plants defend themselves against herbivores and pathogens. K4 (8)

- 8) How do plants perceive and respond to light? Explain photomorphogenesis and photoperiodism. K4 (12)

OR

Explain the process of phloem transport and how sugars are transported throughout the plant. K4 (12)