

FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA
DEPARTMENT OF PLANT BIOLOGY
SECOND SEMESTER BTECH. EXAMINATION, 2017/2018 SESSION

COURSE CODE: PLB 321
COURSE TITLE: PLANT PHYSIOLOGY II
COURSE UNIT: 3
TIME ALLOWED: 2 HOURS

INSTRUCTION: ANSWER TWO (2) QUESTIONS EACH FROM BOTH SECTIONS

SECTION A

1. Write notes on physiological condition of quiescent seed.
2. a. Differentiate between organismic and cellular respiration
b. With the aid of biochemical structure, briefly explain the preparatory phase in glycolysis.
3. Give an account of classification and substrate specificity of enzymes.

SECTION B

4. A plant biology student kept a potted plant on a table near an opened window of his room. Two days later he observed bending movement of its upper shoot toward the direction of the window. With the aid **well-labelled diagram**, explain his observation using auxin-light interaction.
5. a. Copy and complete the table below:

Type of Tropic Movement	Type of Tactic Movement	Example
Negative geotropism	NIL	
NIL		Movement of zoospores away from chemical substance
	Negative phototaxis	
		Movement of <i>Chlamydomonas</i> towards warmer side of a tube
		Movement of shoot tip toward the source of unilateral light

- b. Write concise notes on tropic movement.
6. With the aid of annotated diagram explain in detail how auxin concentration influences movement curvature in the root.

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COURSE TITLE: PLANT FORMS AND FUNCTION
COURSE UNIT: 3
TIME ALLOWED: 2 HOURS