

FEDERAL UNIVERSITY OF TECHNOLOGY, OWERRI.

SCHOOL OF SCIENCE

DEPARTMENT OF SCIENCE LABORATORY TECHNOLOGY

ST / BCH 405 : PLANT BIOCHEMISTRY

20/03/2013

ANSWER FOUR QUESTIONS

TIME : 2 HOURS

Question 1

- (a) With the aid of a well labeled diagram, discuss the organisation of the plant cell.
- (b) Write short notes on (i) alkaloids (ii) flavonoids.

Question 2

- (a) Discuss photosynthesis in detail, explaining the process of light and dark reactions.
- (b) State all the necessary equations in both reactions.

Question 3

With the aid of a diagram, explain the role of the visible spectrum in plant productivity.

Question 4

- (a) What is a cell wall?
- (b) Describe the functions of the cell wall.

Question 5

- (a) What is a Lignin?
- (b) (i) What are the main building blocks of Lignin. (ii) With the aid of a diagram only, describe the main biosynthetic pathway of monolignols.

Question 6

- (a) (i) Define and describe Plant hormones. (ii) List the important plant hormones with their structures.
- (b) (ii) Define and describe Pesticides. (ii) Describe briefly the health effect of herbicide application.