



FACULTY OF SCIENCE

DEPARTMENT OF BOTANY AND PLANT BIOTECHNOLOGY

MODULE BOT2B10 PLANT PHYSIOLOGY

CAMPUS APK

EXAM NOVEMBER 2014

DATE: 15 NOVEMBER 2014

SESSION: 08:30 - 10:30

ASSESSOR:

PROF CS WHITEHEAD

INTERNAL MODERATOR:

MRS L O'REILLY

DURATION: 2 HOURS

MARKS: 100

NUMBER OF PAGES: 2 PAGES

INSTRUCTIONS: ANSWER ALL THE QUESTIONS.

REQUIREMENTS: EXAM BOOK

QUESTION 1

Discuss the nature, synthesis, and functions of ethylene in plant growth and development.

(20)

QUESTION 2

Discuss the role of K^+ in the process of stomatal opening.

(10)

QUESTION 3

Draw a diagram to illustrate the dark phase of photosynthesis in C4-plants.

(15)

QUESTION 4

Draw a diagram to illustrate the metabolism of acetyl-CoA and production of NADH and FADH in the TCA (Krebs) cycle during respiration.

(15)

QUESTION 5

Explain the uploading, downloading and transport of photoassimilates in the phloem.

(20)

QUESTION 6

Write an essay to explain the role of photoperiodism in flowering.

(20)

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