



FACULTY OF SCIENCE

DEPARTMENT OF BOTANY AND PLANT BIOTECHNOLOGY

MODULE BOT02B2/BOT2B10 PLANT PHYSIOLOGY

CAMPUS APK

EXAM NOVEMBER 2018

DATE: 12 NOVEMBER 2018

SESSION: 08:30 - 10:30

ASSESSOR:

PROF CS WHITEHEAD

INTERNAL MODERATOR:

MRS R TONG

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 assimilation of CO_2 during photosynthesis in C4-plants (malate formers only).

(15)

QUESTION 4

Draw a diagram to illustrate the production of ATP in the electron transport system of respiration.

(15)

QUESTION 5

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

(20)

QUESTION 6

Explain the role of photoperiodism in flowering.

(20)

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