

UNIVERSITY OF ESWATINI

MAIN EXAMINATION PAPER 2020/2021

COURSE CODE : BIO442/B402

TITLE OF PAPER : PLANT PHYSIOLOGY

TIME ALLOWED : THREE (3) HOURS

INSTRUCTIONS :

1. ANSWER ANY THREE (3) QUESTIONS
2. EACH QUESTION CARRIES 25 MARKS.
3. ILLUSTRATE YOUR ANSWERS WITH LARGE AND CLEARLY LABELLED DIAGRAMS WHERE APPROPRIATE

SPECIAL REQUIREMENTS :

NONE

THIS PAPER IS NOT TO BE OPENED UNTIL PERMISSION HAS BEEN GRANTED BY THE INVIGILATOR(S).

QUESTION 1.

Discuss the characteristics of the soil in terms of plant growth and highlight the constituents that are required for the roots of higher plants.

[25 Marks]

QUESTION 2.

Compare and contrast the functions of cytokinins and gibberellins as phytohormones in plant growth and development.

[25 Marks]

QUESTION 3.

Discuss the physiological impact of drought stress on higher plants.

[25 Marks]

QUESTION 4.

Explain the considerations when setting up sprinkler irrigation systems to achieve efficient water use.

[25 Marks]

[TOTAL MARKS: 75]