

2ND SEMESTER 2009/2010

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UNIVERSITY OF SWAZILAND

FINAL EXAMINATION PAPER

PROGRAMME:

BACHELOR OF SCIENCE DEGREE IN AGRONOMY

YEAR 4

COURSE CODE: CP 405

TITLE OF PAPER: BIOFUEL CROPS

TIME ALLOWED: TWO (2 HOURS

INSTRUCTION:

ANSWER QUESTIONS ONE AND TWO AND ANY OTHER TWO (2) QUESTIONS OF YOUR **CHOICE**

DO NOT OPEN THIS PAPER UNTIL PERMISSION HAS BEEN GRANTED BY THE CHIEF INVIGILATOR

QUESTION 1

[THIS IS A COMPULSORY QUESTION]

There are about 600,000 cattle in Swaziland, which have both beneficial and harmful effects on the Swazi nation. Discuss the above statement. Include in your discussion how the beneficial effects can be harnessed and the harmful ones addressed.

(28 Marks)

QUESTION 2

[THIS IS ALSO A COMPULSORY QUESTION]

Discuss the advantages and the disadvantages of growing jatropha as a feedstock in Swaziland.

(28 Marks)

QUESTION 3

Write briefly on the following. Each question carries five marks.

- (a) Carbon sequestration (4 marks)
- (b) Cassava as a feedstock in Swaziland (5 marks)
- (c) Use of algae as a feedstock (5 marks).
- (d) Status of ethanol production in Swaziland (4 marks).
- (e) Kyoto protocol (4 marks)

(22 Marks)

QUESTION 4

Discuss the effectiveness or otherwise of natural forests, man-made forests and sugarcane as carbon sinks.

(22 Marks)

QUESTION 5

Explain why there has been renewed interest in biofuels in recent years.

(22 Marks)