



2nd SEM. 2006/2007

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THE UNIVERSITY OF SWAZILAND

FINAL EXAMINATION

PROGRAMMES: B.Sc. IN AGRICULTURE YEAR V (CROP PRODUCTION AND HORTICULTURE OPTIONS)

COURSE CODE: CP 505

TITLE OF PAPER: SOIL MANAGEMENT

TIME ALLOWED: TWO [2] HOURS

INSTRUCTIONS: ANSWER ANY FOUR [4] QUESTIONS

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QUESTION 1

- a) Explain the basis for the popularity of the lowland rice production system despite the fact that it is labour intensive. [12]
- b) What is a saline soil ? [3]
- c) Discuss the management strategies you would recommend to increase crop yields in saline soils. [10]
- [25]

QUESTION 2

Discuss the soil requirement and management of soils for sugarcane production. [25]

QUESTION 3

Discuss the pros and cons of the following kinds of fire:

- i) Crown fire [9]
- ii) Ground fire [8]
- iii) Man induced fire [8].
- [25]

QUESTION 4

- a) Outline the distribution and development of acid-sulphate soils [12]
- b) What reclamation procedure would you employ to increase crop yields in such soils ? [13]
- [25]

QUESTION 5

- a) Explain the origin of charge in highly weathered soils of the tropics and subtropics. [10]
- b) Discuss the implications of variable charge of tropical and subtropical soils on: i) nutrient retention and ii) lime requirement. [15]
[25]