



**UNIVERSITY OF SWAZILAND
FINAL EXAMINATION PAPER ,**

PROGRAMME: DIP AGRIC III & DIP AGRIC ED. III

COURSE CODE: LUM 305

TITLE OF PAPER: INTRODUCTION TO LAND USE PLANNING

TIME ALLOWED: TWO (2) HOURS

SPECIAL MATERIAL REQUIRED: NONE

**INSTRUCTIONS: ANSWER QUESTION ONE AND ANY TWO OTHER
QUESTIONS.**

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GRANTED BY THE CHIEF INVIGILATOR**

QUESTION ONE: COMPULSORY QUESTION

- (a) Using realistic examples illustrate how you can use soil depth, slope and wetness problems to evaluate land for suitability of sugarcane production. (20 marks)
- (b) Briefly explain the difference between qualitative land evaluation and quantitative land evaluation, illustrating when each of the land evaluation methods are used. (20 marks)

QUESTION TWO

- (a) Discuss the structure of a land capability classification, highlighting the type of information shown by each of the levels of the structure. (20 marks).
- (b) Determine the length of a building that is 0.5 cm on an air photo taken from an aircraft flying at an altitude of 3 km, using a camera with focal length of 150 mm. (10 marks)

QUESTION THREE

- (a) Discuss how the concept of land productivity index can be used to compare the value of four land parcels. (20 marks)
- (b) Using examples, illustrate the difference between grid survey and free survey as used in collecting land resource data. (10 marks)

QUESTION FOUR

- (a) Describe three land characteristics that are considered to be permanent limitations, and two examples that are considered to be temporal limitations during land evaluation, indicating the reasons for them being considered either to be permanent or temporal limitations. (20 marks)
- (b) Using an example describe how the Net Farm Income can be used to evaluate land. (10 marks)