



**UNIVERSITY OF SWAZILAND
SUPPLEMENTARY 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) Give a brief description of the levels at which data can be collected for use in land use planning, giving the relevant scales of mapping. (20 marks)

(b) Using an example, illustrate how the scale of an aerial photo can be determined using a map of the same area with a known scale. (20 marks)

QUESTION TWO

(a) Categorise the land units below into land suitability subclasses for the given types of land uses. (20 marks)

| Land characteristic | Land Unit | | | |
|-----------------------------|---------------|------------------|---------------|---------------|
| | A | B | C | D |
| Soil depth (cm) | 10 | 90 | 50 | 60 |
| Slope (%) | 2 | 10 | 4 | 18 |
| Wetness problem | Not a problem | Very wet (swamp) | Not a problem | Not a problem |
| Erosion problem | Not a problem | Not a problem | Not a problem | Moderate |
| Vegetable production | | | | |
| Maize production | | | | |
| Building homestead | | | | |
| Forest plantation | | | | |
| Grazing | | | | |

(b) Describe the procedure to be followed when mapping drainage lines from a pair of aerial photos. (10 marks)

QUESTION THREE

- (a) Briefly describe five methods of acquiring data for land use planning. (20 marks)
- (b) Using examples briefly describe reconnaissance field survey and illustrate how it differs from semi-detailed field survey. (10 marks)

QUESTION FOUR

- (a) Using examples; describe three types of land evaluation, highlighting how each of the methods can be done. (20 marks)
- (b) List three features of land that can be identified from remote sensing giving a brief description of how each of the features can be identified. (10 marks)