



**UNIVERSITY OF SWAZILAND
MAIN EXAMINATION PAPER**

**PROGRAMME: BSC IN AGRICULTURAL & BIOSYSTEMS
ENGINEERING**

COURSE CODE: ABE 401

TITLE OF PAPER: LAND EVALUATION AND 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**

SECTION I: COMPULSORY QUESTION

QUESTION ONE

- a. Explain how land capability classification is different from land suitability classification, indicating the conditions under which each of them may be applicable. **[20 marks]**
- b. Explain the meaning following components of the land capability and suitability classification structures: Give examples where possible.
 - Land capability class /5 marks
 - Land suitability order /5 marks
 - Land capability subclass /5 marks
 - Land suitability class /5 marks

[20 marks]

SECTION II: ANSWER ANY TWO QUESTIONS FROM THIS SECTION

QUESTION TWO

- a. Using examples, explain what is the difference between major and minor land improvements? **[10 marks]**
- b. Describe two factors that should be considered when undertaking a social impact analysis of land use. **[10 marks]**
- c. Organizing the work plan is one of the major steps in developing a land use plan. Explain why it is important citing some of the tasks that should be accomplished at this point. **[10 marks]**

QUESTION THREE

- a. Describe how each of the following information is important to know when developing a land use plan?
- Population /4marks
 - Land resources /4marks
 - Infrastructure /3marks
 - Production and trends /4marks
- [15 marks]**
- b. Describe the common land use problems related to the following factors:
- i. Social problems /4marks
 - ii. Mismatch between land use and land suitability /6marks
 - iii. Natural hazards /5marks
- [15 marks]**

QUESTION FOUR

- a. Explain why participation of the local community in a land use planning activity is important? **[10 marks]**
- b. Explain why an Environmental Impact Assessment (EIA) is an important tool in land use planning? /5
- c. Describe two possible negative impacts that could be identified when carrying out an EIA for a dam construction. /10
- d. Explain how is a Strategic Environmental Assessment is different from an Environmental Impact Assessment? /5
- [20 marks]**