



UNIVERSITY OF ESWATINI  
FINAL EXAMINATION PAPER

PROGRAMME; BSc. AGRICULTURAL AND BIOSYSTEMS ENGINEERING  
LEVEL 3

COURSE CODE:                    ABE307

TITLE OF PAPER: RESEARCH METHODS

TIME ALLOWED: TWO (2) HOURS

SPECIAL MATERIAL REQUIRED: NONE

INSTRUCTIONS: ANSWER QUESTION ONE AND ANY TWO OTHER  
QUESTIONS

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CHIEF INVIGILATOR

**QUESTION 1: COMPULSORY QUESTION**

- a) Discuss how stratified random sampling differs from simple random sampling, indicating conditions under which each of the sampling methods could be used. (15 marks)
- b) Using examples to illustrate your answer, discuss how confidence interval differs from confidence level. (10 marks)
- c) Identify a researchable area in agriculture. Indicate the goal that you would wish to achieve with your research. Present a problem statement of your research and state the main objective. (15 marks)

**Total = 40 marks****QUESTION 2**

- a) Using an example, illustrate how a line graph can be used to present results of a research. (15 marks)
- b) Discuss the conditions under which focus group discussion can be used to collect research data. (15 marks)

**Total = 30 marks****QUESTION 3**

- a) Discuss five reasons why literature review is important in research. (15 marks)
- b) Using examples, discuss the difference between directional hypothesis and non-directional hypothesis. (15 marks)

**Total = 30 marks****QUESTION 4**

- a) Discuss five research practices that should be avoided on the basis of research ethics. (15 marks)
- b) Discuss five factors to be considered when designing a survey research. (15 marks)

**Total = 30 marks**