



1ST SEM. 2006/2007

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**UNIVERSITY OF SWAZILAND
MAIN EXAMINATION PAPER**

PROGRAMME: BSC. IN AGRICULTURAL EDUCATION YEAR III

COURSE CODE: AEE 301

**TITLE OF PAPER: EDUCATIONAL RESEARCH, INSTRUMENTATION
AND DATA ANALYSIS**

TIME ALLOWED: TWO (2) HOURS

INSTRUCTION: ANSWER ALL QUESTIONS

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QUESTION 1

a. List two (2) qualitative types of research and three (3) quantitative types of research, and give examples of each of these types of research

[15 marks]

b. Differentiate between true experimental design and quasi-experimental design, with an example for each.

[10 marks]

[Total marks: 25]

QUESTION 2

a. Contrast the following pairs of terminologies as they relate to survey research:

- i. Target population versus Sample
- ii. Random sampling versus Non-random sampling
- iii. Selection error versus Selection bias
- iv. Validity testing versus Reliability testing
- v. Non-response error versus Non-respondent

[10 marks]

b. State an example for each of the following types of hypotheses:

- i. Inductive hypothesis
- ii. Deductive hypothesis
- iii. Declarative non-directional hypothesis
- iv. Declarative directional hypothesis
- v. Null hypothesis

[15 marks]

[Total marks: 25]

QUESTION 3

a. Give and explain two (3) examples of internal threats, and two (2) examples of external threats, to validity of research.

[10 marks]

b. Explain the MAXMINCON Principle to ensure validity of research designs.

[9 marks]

c. Write an example of how to list reference of a journal article, and an online document.

[6 marks]

[Total: 25 marks]

QUESTION 4

- a. The table below lists examples of data collected from a sample using a questionnaire. Copy the table and fill-in the missing information under each column:

Variable	Scale of measure	Specific example	Inferential statistical method that may be applied	Justification for statistical method
1. Height of students				
2. Employment status of parents				
3. Qualification of teachers				
4. Attitude of pupils				

[16 marks]

- b. Illustrate an example of a data presentation technique for each of the variable listed above:

[8 marks]

- c. I am Prof. M.P. Dlamini, is a variable in what scale of measure?

[1 mark]

[Total marks: 25]