UNIVERSITY OF SWAZILAND

SUPPLEMENTARY EXAMINATION PAPER

PROGRAMME: BSC. IN AGRICULTURAL EDUCATION YEAR III
               (DIRECT AND TRANSFER)

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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BY THE CHIEF INVIGILATOR**

QUESTION 1

Narrate one <u>named qualitative</u> and one <u>named quantitative</u> method/type of research with the following aspects:

a. Title with not more than 11 words; with all desired elements
b. Statement of Theory
c. Statement of Concept to be tested
d. Illustration of a Model or Paradigm to be tested
e. Three possible internal threats to validity of the study and justification

[5 marks each]
[Total marks: 25]

QUESTION 2

List five points describing each terminology:
a. Maximise the experimental variance
b. Minimise the error variance
c. Control the extraneous variance
d. Research objective
e. Hypothesis

[5 marks each]
[Total marks: 25]

QUESTION 3

Differentiate the following pairs of terminologies with each other, and with one example for each:

a. Reactive versus Non-reactive measure
b. Single versus Multiple outcomes measure
c. Matching versus Blocking
d. Ratio versus Interval data
e. Validity versus Reliability

[5 marks each]
[Total marks: 25]

QUESTION 4

Write the <u>letter only</u> for the best answer:

a. For the following questions, identify whether the definition refers to:

A) Population	D) Random Sampling
B) Target Population/Sampling Frame	E) Census
C) Sample	F) Selection Bias

_____1. Some subjects had more chances than others to be selected in the sample.

_____2. Actual list of sampling units from which the sample is selected.

_____3. Studying the entire population, especially if it is small in number.

_____4. Group of individuals having one characteristic that distinguishes them from the other groups.

_____5. Group of participants in a study selected from the target population, from which the research generalizes.

b. For the following questions, identify whether the definition refers to:

A} Frame error	D}Validity error
B} Sampling bias	E) Reliability error
C} Selection error	F} Non-response error

_____6. Did not use an instrument with clear, unambiguous questions and response options

_____7. Did not use rigorous procedures to have large return rate

_____8. The list of subjects did not include new members

_____9. The sample was not drawn randomly

_____10. The sampling frame had names of subjects listed more than once

_____11. Some items in a section of a questionnaire do not relate well with one another

_____12. Did not use rigorous procedures to have large return rate

_____13. The instrument included irrelevant items for the study

[2 marks each; no.13 has 1 mark= 25 marks]