



1ST SEM. 2009/2010

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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

Contrast the following aspects or issues in the Methodology chapter of a Research Proposal:

- i. Research Method versus Research Design [4 marks]
- ii. Sampling Frame versus Available List of Subjects [3 marks]
- iii. Population versus Sample [3 marks]
- iv. Representative sample versus Accessible sample [3 marks]
- v. Objective Selection versus Selection Bias [3 marks]
- vi. Valid instrument versus Reliable instrument [3 marks]
- vii. Non-response versus Nonsense data [3 marks]

[25 marks]

QUESTION 2

Describe in detail the characteristics of these types of surveys:

- a. survey of records or archives
- b. mail questionnaire
- c. telephone interview
- d. group interview
- e. individual interview

[5 marks for each = 25 marks]

QUESTION 3

Explain in detail how each of the following processes is conducted prior to doing a survey research:

- a. Construct validity testing
- b. Content validity testing
- c. Suitability testing
- d. Field testing
- e. Reliability testing

[5 marks for each = 25 marks]

QUESTION 4

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

Variable	Specific example	Scale of measure	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 graphic for each of the variable listed above:

[8 marks]

c. I am a woman, is a variable in what scale of measure?

[1 mark]

[Total marks: 25]