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**UNIVERSITY OF SWAZILAND  
DEPARTMENT OF GEOGRAPHY, ENVIRONMENTAL SCIENCE &  
PLANNING**

**FINAL EXAMINATION, MAY 2012  
MSc**

- TITLE OF PAPER : GEP RESEARCH TECHNIQUES**
- COURSE NUMBER : ERM 625**
- TIME ALLOWED : THREE (3) HOURS**
- INSTRUCTIONS : ANSWER ONE QUESTION FROM EACH SECTION  
ILLUSTRATE YOUR ANSWERS WITH APPROPRIATE DIAGRAMS**
- MARK ALLOCATION : QUESTION 1 CARRIES 40 MARKS. THE OTHER QUESTIONS CARRY 30 MARKS**

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**ERM 625: GEP RESEARCH METHODS**

**ANSWER ONE QUESTION FROM EACH SECTION**

**SECTION A: ANSWER THE ENTIRE QUESTION**

**QUESTION 1**

- a) Outline the major ethical challenges that arise in scientific research. (10 marks)
  - b) Using examples explain how researchers are expected to address these ethical issues in (a) above. (10 marks)
  - c) Explain the situation under which the following research purposes can be attained:
    - i) To explore; (3 marks)
    - ii) To describe and classify; (3 marks)
    - iii) To establish relationships; (3 marks)
    - iv) To show causality; and (3 marks)
    - v) To explain. (3 marks)
  - (d) Using examples explain the main differences between basic and applied research. (5 marks)
- (40 Marks)**

**SECTION B: ANSWER ONE QUESTION ONLY**

**QUESTION 2**

Identify and discuss different ways of determining the validity of measurement instruments in both quantitative and qualitative research. (30 Marks)

**QUESTION 3**

- a) Outline the experimental approach to research. (20 marks)
  - b) Discuss the limitations of this approach. (10 marks)
- (30 Marks)**

**SECTION C: ANSWER ONE QUESTION ONLY**

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**QUESTION 4**

Choose any research topic of your interest and based on it do the following:

- a) Identify the research problem (5 marks)
  - b) State the aims and objectives of the research (5 marks)
  - c) Formulate the research question (s) (5 marks)
  - d) Identify the variables to be measured (5 marks)
  - e) Outline the quantitative data to be collected (5 marks)
  - f) Indicate the units of analysis (5 marks)
- (30 Marks)**

**QUESTION 5**

Using examples, explain how you would analyze data quantitatively, present results and organize a research report. **(30 Marks)**

**END OF EXAM PAPER**