



# **MAASAI MARA UNIVERSITY**

**REGULAR UNIVERSITY EXAMINATIONS**

**2023/2024 ACADEMIC YEAR**

**FIRST YEAR FIRST SEMESTERE**

**SCHOOL OF EDUCATION**

**MASTER OF EDUCATION**

**COURSE CODE: EPS 8214/SNE 8104C/EDU 894**

**COURSE TITLE: RESEARCH METHODS II**

**DATE: 7/12/2023**

**TIME: 1100-1400 HRS**

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**INSTRUCTIONS TO CANDIDATES**

Answer Question **ONE** and any other **TWO** questions

### **QUESTION ONE**

- a) Explain the following research concepts and provide relevant examples for each:
- i. Sampling methods (2 marks)
  - ii. Qualitative research (3 marks)
  - iii. Quantitative research (3 marks)
  - iv. Dependent variable (3 marks)
  - v. independent variable (3 marks)
- b) Discuss **three** characteristics of a researchable problem (6 marks )

### **QUESTION TWO**

- a) Explain the following statistical procedures commonly used in inferential statistics and provide brief and clear explanations for each:
- i. T-test (2 marks)
  - ii. Anova (3 marks)
  - iii. Chi-square (3 marks)
- b) Discuss and compare **THREE** qualitative data collection techniques in terms of their strengths and limitations, providing examples for each (10 marks)

### **QUESTION THREE**

- a) How does levels of measurement affect the types of statistical analyses that can be applied to a variable during data analysis process? (8 marks)
- b) Examine the importance of sampling methods in research design, providing specific examples to illustrate your points. (12 marks)

### **QUESTION FOUR**

- a) Discuss the advantages of incorporating ethical considerations into scientific experiments and data collection. (8 marks)
- b) Explain the steps involved in conducting a thematic analysis of qualitative data (12 marks)

### **QUESTION FIVE**

- a) Discuss the significance of the following key statistical concepts in the context of data analysis, providing specific examples to illustrate their importance:
- i. Hypothesis Testing (5 marks)
  - ii. significance level (5 marks)
- b) Explain the concepts of false positives and false negatives in the context of hypothesis testing, providing real-world examples for each type of error. (10 marks)

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