



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**SCHOOL OF AGRICULTURAL AND FOOD SCIENCES**  
**FIRST YEAR FIRST SEMESTER UNIVERSITY EXAMINATION FOR THE DEGREE OF**  
**MASTER OF SCIENCE IN AGRICULTURAL EXTENSION**  
**2022/2023 ACADEMIC YEAR**

**REGULAR**

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**COURSE CODE: AEE: 5112**

**STREAM: MSc. Extension**

**COURSE TITLE: Research Methods in Extension**

**Date:**

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**Instructions:**

**Answer Question One (Compulsory) and ANY other TWO questions.**  
**Answers to Questions must be written in the Answer Booklets**  
**Candidates must hand in their answer booklets to the invigilator while in the examination room.**

**1. QUESTION ONE**

- a. Identify a research topic and briefly illustrate the following: (10 marks)
  - i. The aim of the study
  - ii. TWO objectives of the study
  - iii. The null and alternative hypotheses of the research
- b. Explain FIVE research instruments that can be used in your research (5 marks)
- c. State FIVE ways that you can use to share your research findings (5 marks)

**2. QUESTION TWO**

- a. Explain FIVE reasons why a literature review is important in the research process. (10 marks)
- b. Identify FIVE sources of literature available for researchers (5 marks)
- c. Explain TWO ways available for researchers to use information gathered from literature sources without accusation of plagiarism (3 marks)
- d. Differentiate between in-text citations and a list of references (2 marks)

**3. QUESTION THREE**

- a. Explain THREE advantages and TWO Disadvantages of sampling during data collection (10 marks)
- b. Discuss the TWO main sampling techniques (5 marks)
- c. Outline FIVE situations when large samples may be required (5 marks)

**4. QUESTION FOUR**

- a. Explain FIVE reasons why the hypothesis is important in research (10 marks)

- b. Discuss TWO types of the alternative hypothesis (5 marks)
- c. Highlight FIVE characteristics of a good hypothesis (5 marks)

5. QUESTION FIVE

- a. Explain FIVE reasons why research is important (5 marks)
- b. Outline the research process (5 marks)
- c. Highlight FIVE factors to consider when selecting a research topic (5 marks)
- d. State FIVE components of an introduction section of a research report (5 marks)