



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**SCHOOL OF BIOLOGICAL, PHYSICAL, MATHEMATICS AND ACTUARIAL**  
**SCIENCES**  
**UNIVERSITY EXAMINATION FOR DIPLOMA IN TVET**  
**EXAM 2022/2023**  
**MAIN REGULAR**

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**COURSE CODE: WMB 2113**

**COURSE TITLE: RESEARCH METHODS**

**EXAM VENUE**

**STREAM: Diploma in Applied Statistics**

**DATE:.....**

**EXAM SESSION: ONE**

**TIME: 3 HOURS**

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**Instructions:**

- 1. Answer ONE and any other three questions only.**
- 2. Candidates are advised not to write on the question paper.**
- 3. Candidates must hand in their answer booklets to the invigilator while in the examination room.**

## SECTION A: 30 MARKS

- a). Explain two primary methods of data Collection. [4 Marks]
  
- b). Explain three ethical issues to be put in consideration during primary and secondary data collection [6 Marks]
  
- c). Differentiate between probability and Non probability sample design [2 Marks]
  
- d). Explain three sampling techniques used in Research [3 Mark]
  
- e). State three factors that affect sample design
  
- f). Explain four characteristics of a well stated research problem [4 Marks]
  
- g). State and Explain two elements of Data Analysis [2 Marks]
  
- h). State two types of research designs [2 Marks]
  
- i). Explain two criteria of a good research [2 Marks]
  
- j). Identify a Research Topic and Briefly Illustrate the following; [5 Marks]
  - i. Aim of the Study
  - ii. Two objectives of your study
  - iii. Null and Alternative Hypothesis of your Study

## SECTION B: 40 MARKS

### QUESTION ONE

- a) Explain **FIVE** reasons why research is important [5 Marks]
- b) Outline Research Processes [5 Marks]
- c) Highlight **FIVE** factors to consider when highlighting Research Topic [5 Marks]
- d) State **FIVE** components of an introduction section of a research report [5 Marks]

### QUESTION TWO

- a) Explain **THREE** advantages and **THREE** disadvantages of sampling during data collection. [12 Marks]
- b) Explain **FOUR** main Sampling Techniques [8 Marks]

### QUESTION THREE

- a) Explain the meaning of Research Process. [ 1 Mark]
- b) Explain **FIVE** reasons why literature review is important in the research process. [ 10 Marks]
- c) Identify **FIVE** sources of literature available for researchers [5 Marks]

- d) Explain **TWO** ways available for researchers to use information gathered from literature sources without accusation of plagiarism [ 4 Marks]

#### QUESTION FOUR

- a) Explain **FIVE** reasons why hypothesis is important in research [ 10 Marks]
- b) Discuss **TWO** types of alternative hypothesis [ 5 Marks]
- c) Highlight **FIVE** characteristics of a good hypothesis [ 5 Marks]