



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHOOL OF MATHEMATICS AND ACTUARIAL SCIENCE

**UNIVERSITY EXAMINATION FOR DEGREE OF BACHELOR OF ACTUARIAL
SCIENCE**

RESIT 2

MAIN CAMPUS

COURSE CODE: SAS 314

COURSE TITLE: RESEARCH METHODOLOGY

EXAM VENUE:

STREAM: (ACTUARIAL SCIENCE)

DATE:

EXAM SESSION:

TIME: 2.00 HOURS

Instructions:

- 1. Answer question one (compulsory) and any other two questions.**
- 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.**

QUESTION 1 [30 Marks]

- a) Give a precise definition of “Research” and hence discuss at least 3 components of research. (6 marks)
- b) Distinguish between Methods and Methodology (4 marks)
- c) State and explain what a good research entails? (6 marks)
- d) Distinguish between Primary and Secondary data (4 marks)
- e) Think of a topic of your choice, Discuss it under the following sub-headings:
 - (i) Topic
 - (ii) Statement of the problem
 - (iii) Objectives
 - (iv) Research questions or hypothesis (10 marks)

QUESTION 2 [20 Marks]

Explain in details the purpose of literature review in proposal writing and further discuss the three main sources of information for literature review. (20 marks)

QUESTION 3 [20 Marks]

Discuss in details at least 5 types of research design (20 marks)

QUESTION 4 [20 Marks]

Enumerate and discuss at least 10 types of sampling techniques (20 marks)

QUESTION 5 [20 Marks]

At what point in research are the following tools important:

- i) Student t-test
- ii) Chi-square (χ^2)
- iii) Correlation (r)
- iv) Anova (f-test)
- v) Regression analysis (R)