

CHUKA



UNIVERSITY

**UNIVERSITY EXAMINATIONS**

**SECOND YEAR EXAMINATION FOR THE AWARD OF MASTER OF  
SCIENCE IN APPLIED STATISTICS**

**MATH 890: RESEARCH METHODOLOGY**

**STREAMS: MSC (APPLIED STATS)**

**TIME: 3 HOURS**

**DAY/DATE: WEDNESDAY 07/8/2019**

**2.30 P.M. – 5.30 P.M.**

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**INSTRUCTIONS: Attempt question ONE and any other TWO**

**QUESTION ONE (20 MARKS) – COMPULSORY**

- (i) What is your understanding of the term research [2 marks]
- (ii) Explain four objectives of research [8 marks]
- (iii) Research can be classified based on purpose or method. Explain two types of research classified based on purpose and two classified based on method. [8 marks]
- (iv) Chose a topic related to Msc (Applied statistics), then briefly Develop a brief proposal/concept paper highlighting the following key areas:
  - (i) Title [2 marks]
  - (ii) Background [2 marks]
  - (iii) Statement of the problem [2 marks]
  - (iv) Objectives and hypothesis [4 marks]
  - (v) Methodology [2 marks]

**QUESTION TWO (20 MARKS)**

- (a) Discuss the objectives of research in national development [10 marks]
- (b) Explain the various ways a research project can be classified [5 marks]
- (c) Explain the role of research design in a research process [5 marks]

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### QUESTION THREE (20 MARKS)

- (a) In research methodology, literature review is very important
- (i) Explain how literature review should be conducted [5 marks]
  - (ii) Explain five reasons why literature review is important. [10 marks]
- (b) (i) What is plagiarism? Explain [2 marks]
- (ii) In your own opinion, what are some practical ways to avoid plagiarism? Explain [3 marks]

### QUESTION FOUR (20 MARKS)

- (a) Write brief essay on the research process [10 marks]
- (b) (i) What is an hypothesis as used in research methodology? [2 marks]
- (ii) Explain four characteristics of a good hypothesis [8 marks]

### QUESTION FIVE (20 MARKS)

- (a) Sometimes, errors are inevitable in a research process. Highlight four possible sources of errors in a research [4 marks]
- (b) What is a research design? Explain the role of the research design in a research process [4 marks]
- (c) The chapter on methodology is very important in research. Explain its content, giving relevant examples in each case. [12 marks]
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