



(The University of Choice)

**MASINDE MULIRO UNIVERSITY OF
SCIENCE AND TECHNOLOGY**

(MMUST)

MAIN CAMPUS

2021/2022 ACADEMIC YEAR

UNIVERSITY EXAMINATIONS

**SPECIAL/SUPPLEMENTARY FOR SECOND YEAR
EXAMINATIONS**

FOR THE DEGREE

OF

**BACHELOR OF COMPUTER SCIENCE, INFORMATION
TECHNOLOGY & INFORMATION SYSTEMS AND
KNOWLEDGE MANAGEMENT**

COURSE CODE: BCS 222/BIT 223

**COURSE TITLE: RESEARCH METHODS & TECHNICAL
WRITING**

DATE: MONDAY 01-08-2022

TIME: 8:00A.M-10:00A.M

INSTRUCTIONS TO CANDIDATES

Answer questions ONE and any other TWO questions.

TIME: 2 Hours

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 3 Printed Pages. Please Turn Over.

QUESTION ONE 30 MARKS (COMPULSORY)

- a. Identify at least **FIVE** essentials of a good Questionnaire. 5 Marks
- b. Differentiate between the following terms as they are applied in research:
 - i. Basic research and applied research 4 Marks
 - ii. Probability sampling and non-Probability sampling 4 Marks
- c. Identify at least **SIX** Qualitative Research Methods and **SIX** types of qualitative self-report techniques. 6 Marks
- d. Briefly explain each of the following terms as applied in research.
 - i. Sampling 2 Marks
 - ii. Data Analysis 2 Marks
 - iii. Conceptual Framework 2 Marks
- e. Identify and briefly explain **FIVE** specific purposes of research. 5 Marks

QUESTION TWO 20 MARKS

- a. State and briefly explain **ANY THREE** effective and commonly used methods of data collection in research. 6 Marks
- b. State the key Steps in the Formulation of Research Problem. 6 Marks
- c. Briefly explain each of the following terms as they are applied in research.
 - i. Qualitative research 2 Marks
 - ii. Hypothesis 2 Marks
 - iii. Explanatory Research 2 Marks
 - iv. Interpretation 2 Marks

QUESTION THREE 20 MARKS

- a. Differentiate between the following common research concepts
 - i) Reliability and validity 3 Marks
 - ii) Null and Alternative Hypothesis 3 Marks
 - iii) Depended and Independent variable 3 Marks
 - iv) Limitations and Delimitation 3 Marks
- b. Identify at least **FOUR** questions which constitute the core of a research design. 8 Marks

QUESTION FOUR 20 MARKS

- a. Highlight **FIVE** Components of a good Research Design 5 Marks
- b. A number of factors do affect research design. Identify **FIVE** such factors and briefly explain how they affect the research design. 5 Marks
- c. Identify a researchable problem in your core area of study; using your knowledge in research, briefly do chapter one of the study. Be certain to include all the components of the chapter. 10 Marks

QUESTION FIVE 20 MARKS

- a. Differentiate between primary and secondary data as they are applied in research. 4 Marks
- b. Identify and briefly explain **FOUR** essentials of a good sampling. 8 Marks
- c. Explain the different sources of secondary data and the precautions in using secondary data. 8 Marks