NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACULTY OF COMMUNICATION AND INFORMATION SCIENCE

DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE

MASTER OF SCIENCE DEGREE IN LIBRARY AND INFORMATION SCIENCE

RESEARCH METHODS AND DATA ANALYSIS TECHNIQUES

ILI 5102

First Semester Examination Paper

November 2024

This examination paper consists of 2 pages

Time Allowed:	3 hours
Total Marks:	100
Special Requirements:	None
Examiner's Name:	N. Pasipamire

INSTRUCTIONS

1. Answer any <u>four</u> (4) questions.
2. Give equal time to all questions you choose.
3. Each question carries 25 marks.
4. Importance is attached to clear presentation of ideas, good expression and legibility of handwriting.

MARK ALLOCATION

QUESTION	MARKS
1.	25
2.	25
3.	25
4.	25
5.	25
6.	25

1. Discuss how researchers can leverage 4th Industrial Revolution (4IR) technologies to enhance their research methodologies? [25 Marks]

2. Distinguish between deductive and inductive reasoning, providing examples of how each is applied in research study development. [25 Marks]

3. Critically discuss the roles of literature review, theoretical framework, and conceptual framework in research study development, exploring their interconnections and distinctions. [25 Marks]

4. Discuss, using examples, how and when each of the following strategies of inquiry can be used in a study.

   i.   Experimental method   [5 Marks]
   ii. Historical method   [5 Marks]
   iii. Survey method   [5 Marks]
   iv. Comparative method   [5 Marks]
   v.   Case study method   [5 Marks]

5. Critically evaluate the ethical implications of covert observation in research, considering the tension between informed consent and accurate data collection [25 Marks]

6. The fundamental gospel of statistics is to push back the domain of ignorance, predejuice , rule of thumb, arbitrary and premature decisions traditional and dogmatism and to increase the domain in which decisions are made and principles are formulated on the basis of analysed quantitative facts. In relation to this statement discuss, using examples, the usefulness descriptive and inferential statistics in your profession. [25 Marks]