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 2015

This examination paper consists of 2 pages

Time Allowed: 3 hours

Total Marks: 100

Special Requirements: Graph Paper

Examiner's Name: Mr N. Pasipamire

INSTRUCTIONS

1. **Question 1 is compulsory**
2. Answer any other **three (3)** questions in addition to question 1
3. Give equal time to all questions you choose.
4. Each question carries 25 marks.
5. 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. Use both the histogram and the Interquartile range (IQR) to detect outliers of the following observations:
   34, 34, 26, 37, 42, 41, 35, 31, 41, 33, 30, 74, 33, 49, 38, 61, 21, 41, 26, 80, 43, 29, 33, 35, 45, 49, 39, 34, 26, 25, 35, 33. [25 marks]

2. How appropriate is a case study as a research design and as a method? Support your arguments with examples from your field of study. [25 marks]

3. With specific reference to the issues listed below, demonstrate how the interpretivist paradigm influences research processes.

3.1 Axiology [5 marks]
3.2 Ontology [5 marks]
3.3 Epistemology [5 marks]
3.4 Methodology [5 marks]
3.5 Theory [5 marks]

4. For researchers in the social sciences, the ethical issues are pervasive and complex and data should never be obtained at the expense of human beings. Critically assess, using examples from your profession, the ethical issues one needs to be mindful of and ways of dealing with them. [25 marks]

5. Discuss, using concrete examples, validity and reliability issues that apply to different types of quantitative and qualitative strategies of inquiry, pointing out threats and measures that can be used to overcome them. [25 marks]

6. Justify, using concrete examples, the reasons for calculating the standard deviation, range and interquartile range as measures of variability when examining a distribution of a quantitative variable. [25 marks]