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

STAGE I FIRST SEMESTER DECEMBER 2008 EXAMINATIONS

ILI 5102 RESEARCH METHODS AND DATA ANALYSIS TECHNIQUES

Time: 3 hours + 30 minutes reading

INSTRUCTIONS TO CANDIDATES

1.   Question I in Section A is compulsory.
2.   Answer question 1 and any other 3 questions from Section B.
3.   Importance is attached to accuracy, clarity of expression and legible handwriting.
4.   Each question carries 25 marks.

SECTION A: compulsory
1. As an Information Specialist, you have been requested to advise the Zimbabwe government on how it could improve the health and agricultural production in a small mining community in Natural Region I, a high rainfall area. You are given 4 weeks in which to prepare your brief. Discuss what the preparation process would entail; and give a summary of the most likely content of your recommendations.

SECTION B: answer any 3 questions
2.   Any research that bears the main characteristics of experimental research, which are manipulation, control and randomisation, even in a natural setting, can be described as experimental research. Discuss, with examples, what these characteristics entail for a researcher in a social research setting.

3(i) A measuring instrument that is not reliable can no be valid, but an instrument can be reliable without being valid. Discuss this statement.

  (ii) Explicitly identify and discuss at least 5 measures that you can take to establish the reliability of a measuring instrument.

4(i) When collecting statistics on library activities, under what circumstances would you use the sampling techniques listed below?
    i.   Simple random sampling instead of systematic sampling.
    ii.   Stratified sampling instead of cluster sampling.
    iii. Convenience sampling instead of purposive sampling.
    iv.   Theoretical sampling instead of chain sampling.

[20 marks]

4(i) Is quota sampling another term for stratified sampling? Discuss.

5   Variables are the things that are measured during research and can be measured in a variety of ways. Develop at least 5 questions that could help you measure the main variable in a research topic of your choice.

6(i) A class of 50 BSc LIS students scored the following marks in an examination.

46	21	26	48	44	15	12	36	46	30
54	41	17	43	34	57	71	69	68	44
17	43	23	41	33	80	79	72	75	65
64	62	49	20	25	35	45	55	65	64
62	37	64	38	34	32	36	64	10	15

a. Prepare a frequency distribution table for the data.
b. Describe the distribution.
c. Explain why you made the classes in the table either exclusive or inclusive.

[15 marks]

6(ii) Libraries routinely collect statistics. Why do you think this is essential? In your answer indicate aspects that you consider essential to gather data on and the limitations of statistics in library and information work.

[10 marks]

THE END