



MASENO UNIVERSITY
UNIVERSITY EXAMINATIONS 2016/2017

**THIRD YEAR FIRST SEMESTER EXAMINATIONS FOR THE
DEGREE OF BACHELOR OF SCIENCE IN MATHEMATICS,
STATISTICS AND ACTUARIAL SCIENCE WITH
INFORMATION TECHNOLOGY**

MAIN CAMPUS

MIT 301: COMPUTER BASED SURVEYS

Date: 29th November, 2016

Time: 3.30 - 6.30 pm

INSTRUCTIONS:

- Answer question ONE and any other TWO questions.
- Start each question on a fresh page.
- Indicate question numbers clearly at the top of each page.
- Scientific calculators may be used.
- Observe further instructions on the answer booklet.

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MIT 301: COMPUTER BASED SURVEYS

INSTRUCTIONS:

Answer Question **ONE** and Any other **TWO** Questions.

Question One (30 marks)

- a) State 4 advantages of Online (internet) surveys. [4 marks]
- b) Differentiate between a survey and an experiment. [2 marks]
- c) Why is it important to compute sample size before collecting data in a survey? [3 marks]
- d) Briefly describe 4 formats of response options in online questionnaires. Clearly illustrate each option. [8 marks]
- e) State the principle steps in any sample survey. [5 marks]
- f) Explain the meaning of the following terms as used in surveys.

- | | |
|---------------------|-----------|
| i. Study Population | [2 Marks] |
| ii. Sampling frame | [2 Marks] |
| iii. Questionnaire | [2 Marks] |
| iv. Stratification | [2 Marks] |

Question Two (20 marks)

- a) Critically compare paper based and computer based surveys. Base your arguments on the following:
- Cost.
 - Time.
 - Response rate.
 - Ability to reach respondent.
 - Ease in analysis of data. [10 marks]
- b) A student designed an online survey questionnaire (see Appendix, last page of question paper). State 5 mistakes you can see on the questionnaire and explain how you could correct them. [10 marks]

Question Three (20 marks)

- a) Differentiate between open ended and close ended questions in a questionnaire. [2 marks]
- b) State 2 advantages and 2 disadvantages closed ended questions in a survey questionnaire. [4 marks]
- c) Why is it important to put instructions in the instrument? Give 5 reasons. [5 marks]
- d) State and explain 3 types of surveys. [9 marks]

Question Four (20 marks)

- a) Explain how you could ensure the following in computer based surveys.
- a. High response rate (give 5 ways). [5 marks]
 - b. Data security (give 2 ways). [2 marks]
 - c. Timely responses (give 3 ways). [3 marks]
- b) State and briefly discuss five problems with web-based surveys. [10 marks]

Question Five (20 marks)

- a) State 8 principles of design for web questionnaires. [8 marks]
- b) Briefly illustrate the following:
- i. How to construct a questionnaire in Google forms. [4 marks]
 - ii. How to construct a questionnaire in Survey Monkey. [4 marks]
 - iii. How to construct a questionnaire in Excel. [4 marks]