



# KENYA METHODIST UNIVERSITY

## END OF 1<sup>ST</sup> TRIMESTER 2010 EXAMINATIONS

**FACULTY** : **COMPUTING AND INFORMATICS**  
**DEPARTMENT** : **COMPUTER INFORMATION SYSTEMS**  
**UNIT CODE** : **CISY 302**  
**UNIT TITLE** : **RESEARCH METHODOLOGY**  
**TIME** : **2 HOURS**

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### Instructions:

- Answer question 1 and any other 2 questions.
- Marks will be awarded to clearly and concisely explained points.

### Question 1

- a) Explain the main steps followed in the sampling procedure. (6 mks)
- b) Briefly explain any five reasons why computer science or medical professionals need to know about research. (8 mks)
- c) Describe the personally administered questionnaire technique of collecting data highlighting four strengths and three weaknesses. (9 mks)
- d) i) Explain five sources of knowledge. (5 mks)  
ii) Highlight at least two reasons why research is a viable and tenable source of knowledge than other sources. (2 mks)

### Question 2

- a) Explain six factors that often affect the external validity of a study. (9 mks)
- b) Explain the following terms giving examples for each.
- i) Sampling frame
  - ii) Intervening variables
  - iii) Hypotheses
  - iv) Experimental mortality. (6 mks)

### Question 3

- a) Explain four ethical issues that must be considered in a research undertaking. (6 mks)
- b) Explain four factors to be considered when choosing a research topic. (6 mks)
- c) List six issues to be considered in writing the research methodology. (3 mks)

### Question 4

- a) Briefly explain how cluster sampling is carried out, giving an appropriate example. (6mks)

- b) Explain three ways of obtaining a reliability coefficient. (6 mks)
- c) List six modes of classifying research. (3 mks)