



**TECHNICAL UNIVERSITY OF MOMBASA**  
***Faculty of Business and Social Studies***

DEPARTMENT OF ELECTRICAL & ELECTRONICS

UNIVERSITY EXAMINATIONS FOR DEGREE IN  
BACHELOR OF ELECTRICAL AND ELECTRONICS

**BMS 4400: RESEARCH METHODS**

SPECIAL/SUPPLEMENTARY EXAMINATIONS

**SERIES: MARCH 2015**

**TIME: 2 HOURS**

**INSTRUCTIONS:**

- Answer Question **ONE (Compulsory)** and any other **TWO** questions.
- Do not write on the question paper

*This paper consists of Three printed pages*

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**QUESTION 1 (Compulsory)**

- a) Mali Mali Company Ltd has note that the marketing and Public Relations department is not functioning well because of the high turnover of employees. The Managing Director would like the department's head to carry out a simple study to find out the causes of the high turnover.

From the above hypothetical information, answer the following questions:

- i) Write a possible research topic that would help investigate the problem faced by the M.P.R department. **(3 marks)**
- ii) Identify **ONE** independent, **THREE** independent and **ONE** possible extraneous variables. **(5 marks)**
- iii) State **THREE** possible objectives that could help guide the department head's investigation. **(6 marks)**
- iv) Identify **TWO** target audience. **(2 marks)**

- v) Highlight the significance of this investigation to the audience. **(6 marks)**
- b) “Literature review should be avoided so that the researcher avoids being influenced by other people”. An undergraduate student was overheard telling his friends. Do you agree with this statement? Support your answer. **(8 marks)**

## QUESTION 2

- a) Kiplikach is interested in carrying out research in academic purposes. Advise him on sources of a research topic that he could explore. **(10 marks)**
- b) i) Explain **FOUR** limitations of secondary data in research. **(4 marks)**  
ii) Outline **THREE** advantages and **THREE** disadvantages of using the face to face interview technique when collecting data. **(6 marks)**

## QUESTION 3

- a) i) Sampling is significant in any research process. Explain **FOUR** reasons in favour of this statement. **(6 marks)**  
ii) Distinguish between internal and external validity of study. **(6 marks)**
- b) A scale is a device for measuring magnitude or quantity of a variable. These are **FOUR** types of scales commonly used as levels of measurements. Explain each of them. **(10 marks)**

## QUESTION 4

- a) Define a research design and explain its **FOUR** purposes in research. **(10 marks)**
- b) Under what conditions would you recommend the use of:  
i) A probability sample  
ii) A non-probability sample  
iii) A cluster sample  
iv) A stratified sample. **(10 marks)**

## QUESTION 5

a) Briefly, explain the following components of a research report:

- i) Abstract
- ii) Theoretical framework
- iii) Empirical literature
- iv) Statement of the problem.

**(8 marks)**

b) i) Explain the following concepts as used in analysis and presentation of data:

- ii) Highly structured interviews are often confused with questionnaires. Explain **FOUR** basic rules that should guide a researcher in the construction of valid and reliable questionnaire items.

**(6 marks)**