



TECHNICAL UNIVERSITY OF MOMBASA  
**Faculty of Engineering &  
Technology**

DEPARTMENT OF BUILDING & CIVIL ENGINEERING

UNIVERSITY EXAMINATION FOR:  
**BACHELOR OF SCIENCE IN CIVIL ENGINEERING**

HRD 2114: RESEARCH METHODOLOGY

**END OF SEMESTER EXAMINATION**

SERIES: DECEMBER 2013

**TIME ALLOWED: 2 HOURS**

**Instructions to Candidates:**

You should have the following for this examination

- *Answer Booklet*

This paper consists of **FIVE** questions. Answer question **ONE (Compulsory)** and any **TWO** questions

Maximum marks for each part of a question are as shown

This paper consists of **TWO** printed pages

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**Question One (Compulsory)**

- a) (i) Briefly explain FOUR main objectives of conducting research. **(8 marks)**
- (ii) Outline EIGHT steps in the Research process **(8 marks)**
- b) (i) Briefly describe the types of measurement scales used in research. **(8 marks)**

(ii) Explain the function of hypothesis in research (6 marks)

**Question Two**

Discuss the considerations taken into account when selecting a research problem. (20 marks)

**Question Three**

a) Outline the procedure used for reviewing literature (6 marks)

b) Discuss the significance of research in Civil Engineering (14 marks)

**Question Four**

a) Explain the FOUR parts of research design (8 marks)

b) Briefly outline the weakness of interview method of data collection (12 marks)

**Question Five**

a) Briefly describe the following types of Research design:  
(i) Exploratory  
(ii) Descriptive  
(iii) Hypothesis testing (9 marks)

b) Distinguish between MLA and APA methods of citation giving an example in each case. (11 marks)