



TECHNICAL UNIVERISTRY OF MOMBASA

# Faculty of Engineering & Technology

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

UNIVERSITY EXAMINATION FOR DEGREE IN:  
BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY  
BACHELOR OF TECHNOLOGY IN INFORMATION TECHNOLOGY  
(BSIT & BTIT)

**BIT 2301/EIT 4309: RESEARC METHODOLOGY**

END OF SEMESTER EXAMINATION

**SERIES: DECEMBER 2014**

**TIME: 2 HOURS**

### **Instructions to Candidates:**

You should have the following for this examination

- *Answer Booklet*

This paper consists of **FIVE** questions. Attempt question **ONE (Compulsory)** and any other **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) Research is a process that consists of a series of steps. Describe the key steps in most research. **(10 marks)**
- b) Research is a scientific method with rigid procedures dictated by demands of Logic and objectivity. Describe any FIVE basic principles of research. **(10 marks)**

c) Describe any FIVE qualities or characteristics of a good research. **(10 marks)**

### **Question Two**

A research proposal is a statement of intention or suggestion on how or what one intends to carry out a research. Write a sample proposal for a system development in ICT **(20 marks)**

### **Question Three**

Find a research problem can be a challenging task:

- (i) Describe the steps followed in selecting a research problem **(5 marks)**
- (ii) Explain the conditions that show the existence of research problem **(5 marks)**
- (iii) Discuss the key things that one would consider before selecting the research problem **(5 marks)**
- (iv) Discuss how one would define a clear boundary within which to carryout research. **(5 marks)**

### **Question Four**

Discuss any FIVE key research strategies. **(20 marks)**

### **Question Five**

- a) Outline the factors to consider while interpreting research data to ensure credibility of research. **(2 marks)**
- b) Describe the key threats to validity of research results **(6 marks)**
- c) Discuss the ethical issues that one considers during research. **(12 marks)**