



# **THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE**

(A Constituent College of Jkuat)

*Faculty of Engineering and Technology*

**DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY**

**DIPLOMA IN INFORMATION COMMUNICATION TECHNOLOGY-(DICT IOA)**

**AMA 2102 : RESEARCH METHODS**

**END OF SEMESTER EXAMINATIONS**

**SERIES: AUGUST/SEPTEMBER 2011**

**TIME: 2 HOURS**

**Instructions to Candidates:**

You should have the following for this examination

- *Answer booklet*

Answer question **ONE (COMPULSORY)** and any other **TWO** questions

This paper consists of **TWO** printed pages

### Question One

a) Define the following terms as used in Research:

- (i) Research (2 marks)
- (ii) Theory (2 marks)
- (iii) Hypothesis (2 marks)
- (iv) Statement of the problem (2 marks)
- (v) Sampling (2 marks)
- (vi) Data (2 marks)

b) Differentiate between the following terms:

- (i) Independent Variables and Dependent Variables (4 marks)
- (ii) Null Hypothesis and Alternative Hypothesis (4 marks)

c) Describe **FIVE** importance of hypothesis as a tool of research (10 marks)

### Question Two

Describe the plan used in writing a research proposal, indicating in detail the major components required in writing it (20 marks)

### Question Three

- a) Define sampling (2 marks)
- b) State and explain sampling techniques available (4 marks)
- c) Explain in detail the types of research designs/methods (14 marks)

### Question Four

- a) A questionnaire is a tool used to do research. Give the features of a good questionnaire (10 marks)
- b) State and explain in detail the types of observational research (10 marks)

### Question Five

- a) Define survey design as a method of research (2 marks)
- b) Outline the **EIGHT** ethical considerations in research (8 marks)
- c) List four significances of research designs (4 marks)
- d) Briefly describe **SIX** roles of research (6 marks)
- e)