



TECHNICAL UNIVERISTY OF MOMBASA

# Faculty of Engineering & Technology

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

DIPLOMA IN INFORMATION COMMUNICATION TECHNOLOGY  
(DICT 12M S-EV/S-FT)

**ECS 2206: RESEARCH METHODS**

SPECIAL/SUPPLEMENTARY EXAMINATION

**SERIES: MARCH 2014**

**TIME: 2 HOURS**

**Instructions to Candidates:**

You should have the following for this examination

This paper consists of **FIVE** questions. Attempt question **ONE** and any other **TWO** questions

Maximum marks for each part of a question are as shown

This paper consists of **THREE** printed pages

**Question One (Compulsory)**

- a) Define the following terms: **(5 marks)**
- (i) Variable
  - (ii) Theory
  - (iii) Hypothesis
  - (iv) Plagiarism
  - (v) Target population
- b) Differentiate between closed and open ended questionnaires **(2 marks)**
- c) Giving an example, differentiate between independent and dependent variables. **(4 marks)**
- d) State and explain **TWO** types of hypothesis. **(4 marks)**
- e) Describe **THREE** characteristics of a good research. **(4 marks)**
- f) State and explain the types of research according to purpose and methods/procedures used. **(10 marks)**

**Question Two**

- a) State **FIVE** importance of a research proposal. **(5 marks)**
- b) Give **FIVE** reasons of conducting a research. **(10 marks)**
- c) State and explain **FIVE** problems that researchers face during literature review. **(5 marks)**

**Question Three**

- a) State the importance of formulating a hypothesis. **(2 marks)**
- b) Explain **FOUR** driving factors to conduct a research. **(4 marks)**
- c) Define the term “sampling” and explain **FOUR** types of sampling. **(9 marks)**
- d) Define a research proposal and explain two types of a research proposal. **(5 marks)**

**Question Four**

- a) Dr. Said is conducting a research on “mushroom growing” in the University of Nairobi, explain **FIVE** factors that needs to be considered when selecting a research tool. **(5 marks)**
- b) Briefly explain the content of a research proposal. **(10 marks)**
- c) State and explain **FIVE** factors considered when formulating a research problem. **(5 marks)**

### **Question Five**

- a) State **TWO** sources and **FOUR** importance of literature review. **(6 marks)**
- b) Differentiate between structured and unstructured interviews. **(4 marks)**
- c) Explain **FOUR** factors that are used to measure the validity of a research report. **(8 marks)**
- d) Give the importance of data collection. **(2 marks)**