# Technical University of Mombasa

*Faculty of Applied and Health Sciences*

DEPARTMENT OF **PURE AND APPLIED SCIENCES**

DIPLOMA IN ANALYTICAL CHEMISTRY
(DAC 12S)

## AAB 2204 : RESEARCH METHODS

**SEMESTER:** EXAMINATIONS

**SERIES:** DECEMBER 2013

**TIME:** 2 HOURS

**INSTRUCTIONS:**

You should have the following for this paper
- *Answer booklet*

This paper consists of *FIVE* questions.
Answer Question **ONE (compulsory)** and any other **TWO** questions
*This paper consists of 2 PRINTED pages*

**Question ONE**

a) Define the following terms

    (i)     Population    **(2marks)**

    (ii)    Data    **(2marks)**

b) List down FOUR sources of knowledge    **(4marks)**

c) Give FOUR qualities of a good research proposal    **(4marks)**

d) Name THREE packages for statistical analysis    **(3marks)**

e) Name FOUR sources of literature review    **(4marks)**

f) Explain TWO sources of primary data    **(4marks)**

g) Name the THREE chapters of a research proposal    **(3marks)**

h) Explain TWO advantages and TWO disadvantages of closed ended questionnaire **(4marks)**

**Question TWO**

a) Outline FIVE reasons for writing a research proposal    **(5marks)**

b) Discuss the mandatory components of a good research proposal    **(10marks)**

**Question THREE**

a) Explain how the following sampling methods are done

    (i)     Snowball    **(5marks)**

    (ii)    Stratified randowm sampling    **(5marks)**

b) Explain experimental research design    **(5marks)**

**Question FOUR**

a) Explain FOUR methods of data collection    **(8marks)**

b) Explain the importance of literature review    **(7marks)**

**Question FIVE**

a) Explain the qualities of a good objective    **(10marks)**

b) Outline the disadvantages of open-ended questions    **(5marks)**