



TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF APPLIED AND HEALTH SCIENCES

DEPARTMENT OF PURE & APPLIED SCIENCES

UNIVERSITY EXAMINATION FOR:

BTAC

AAB 4301: RESEARCH METHODOLOGY

END OF SEMESTER EXAMINATION

SERIES: APRIL 2016

TIME: 2 HOURS

DATE:

Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of 5 questions. Attempt question ONE compulsory and any other two questions.

Do not write on the question paper.

Question ONE

a) Define the following terms as used in research

- | | |
|-------------------------|----------|
| (i) Variable | (1mark) |
| (ii) Experimental group | (1mark) |
| (iii) Control group | (1 mark) |
| (iv) Research design | (1 mark) |
| (v) Sampling | (1 mark) |

b) State **Three** objectives of research (3 marks)

c) Highlight **Three** characteristics of a good research hypothesis (3marks)

d) Distinguish the following terms

- | | |
|---|-----------|
| (i) Theory and Hypothesis | (2marks) |
| (ii) Descriptive and inferential statistics | (2 marks) |

e) Describe the techniques of defining a research problem (5marks)

- f) Explain the measurement errors in research (4marks)
- g) Describe **Three** strategies used in quantitative research (3marks)
- h) Explain the main ethical principles that need to be considered in research (3 marks)

Question TWO

- a) Discuss the methods used in data collection in research (12 marks)
- b) Describe measures of relationships often used in the context of research (8marks)

Question THREE

- a) Describe the steps involved in data processing (8 marks)
- b) Compare Quantitative and qualitative research (12marks)

Question FOUR

- a) Describe the probability sampling methods, citing the advantages and disadvantages of each method (8 marks)
- b) Discuss the problems facing empirical scientific researchers in Kenya (12marks)

Question FIVE

- (i) Explain the measures of dispersion in the context of research (10 marks)
- (ii) Describe the methods used in data presentation in research (10 marks)