



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) Differentiate the following terms as used in research

- (i) Research and scientific method (2 marks)
- (ii) Applied and fundamental research (2 marks)
- (iii) Reliability and Validity (2 marks)

b) Define the following terms in the context of research

- (i) Control (1 mark)
- (ii) Research Hypothesis (1 mark)
- (iii) Treatments (1 mark)

c) Explain **Two** types of research instruments (2 marks)

d) Explain the **Main** sources of literature review (3 marks)

- e) Describe the types of rating scales used in research (3 marks)
- f) Explain the important measures of central tendency used in research (3 marks)
- g) Describe **Two** techniques used in collecting qualitative data (4marks)
- h) Highlight the **Six** norms of scientific research (6marks)

Question TWO

- a) Describe the different steps involved in a research process (10 marks)
- b) Discuss the purposive sampling technique clearly highlighting its advantages, disadvantages and its instances of application in research (10 marks)

Question THREE

Write short notes on the following as used in the context of research

- (i) Cross tabulation (4marks)
- (ii) Multivariate relationships (4 marks)
- (iii) Pearson's moment product correlation (4 marks)
- (iv) Spearman's rank correlation (4 marks)
- (v) Regression analysis (4 marks)

Question FOUR

- a) Describe **three** types of research designs (6 marks)
- b) Discuss **four** ways used to obtain reliability co-efficient in research (8 marks)
- c) Outline the considerations in selecting a research problem (6 marks)

Question FIVE

- a) Discuss **four** characteristics of a good research (4 marks)
- b) Describe **three** experimental designs used in research (6 marks)
- c) Outline **five** factors considered before selecting a research design (5 marks)
- d) State five major weaknesses of the survey data collection method in research (5 marks)