**JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY**

**UNIVERSITY EXAMINATION 2017/2018**

**THIRD YEAR FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN AMEB/AERD/AFIM**

**AER 2313: RESEARCH METHODOLOGY**

**DATE: DECEMBER 2017 TIME: 2 HOURS**

**INSTRUCTIONS:**

Answer All questions in SECTION A and any one (1) question in SECTION B. Start each question on a new page.

**SECTION A**

Question 1

In order to improve employee productivity ABC agribusiness Corporation publishes newsletters in the months of February , April , June, August, October and December to inform and disseminate information on the activities of the firm. An agricultural corporation executive believes that the inspiration messages in the company newsletter increases employee productivity and thus the newsletters should therefore come out more often. The executive intends to compare productivity of the firms between the months the newsletter is published and the months the newsletter is not published such that he compares productivity in January (which does not have a newsletter) with productivity in February (which does not have a newsletter), then compares March’s productivity with April’s, etc.

Required:

1. What do you understand by the term research? Explain its significance in modern times (4arks)
2. Come up with a possible title to this kind of research. (2 marks)
3. Write a problem statement on the above issues (4 marks)
4. Which research design would be most appropriate for this study and why (4 marks)
5. Come up with at least two objectives (2 marks)
6. Come up with the hypothesis to the problem (2 marks)
7. Explain the sampling plan you would employ for this study (4 marks)
8. What are the main characteristics of a good sampling design (4 marks)
9. How would you test for validity and reliability of your study (4 marks)

**Question 2**

Show your understanding of the use of the following concepts in research.

1. Explain the phrase “correlation does not equal causation” why is the distinction so important? (4 marks)
2. Compare and contrast experimental and correlational research designs. (4 marks)
3. Differentiate between literature review and referencing (3 marks)
4. Differentiate between validity and reliability (3 marks)
5. Differentiate between descriptive statistics and inferential statistics (3 marks)
6. Quantitative approach and Qualitative approach to research (3 marks)

**SECTION B**

**Question 3**

1. Explain the four levels of measurements you would use in research clearly giving an example of the variable being measured and stating which statistic you would apply to analyze your data. (10 marks)
2. Critically discuss the relationship that exists between problem statement and research hypothesis and hoe both contribute to the body of knowledge. (10 marks)

**Question 4**

Questionnaires are important and their design is critical because research surveys depend on the comprehensiveness of the topics covered in questionnaires:

1. Describe the typical sequence of activities involved in designing a questionnaire and indicate four instances when is it appropriate to use a questionnaire for research (10 marks)
2. Showing your understanding of the many ways that sample size becomes a consideration in research design and interpretation of results; discuss the significance of sample size in research. In what ways does the size of the sample affect the nature of your study and/or the conclusions you can draw from it? Does a larger sample always mean a “better” study? (10 marks)