



MACHAKOS UNIVERSITY

University Examinations for 2016/2017 Academic Year

SCHOOL OF AGRICULTURE AND NATURAL RESOURCES MANAGEMENT

DEPARTMENT OF AGRICULTURAL EDUCATION AND EXTENSION

**FIRST YEAR FIRST SEMESTER EXAMINATION FOR BACHELOR OF SCIENCE IN
AGRICULTURAL EDUCATION AND EXTENSION**

KCU 301: RESEARCH METHODS IN AGRICULTURAL EDUCATION EXTENSION

DATE:

TIME:

INSTRUCTIONS

Answer Question One and Any Other Two Questions

SECTION A: ANSWER ALL QUESTIONS. (30 MARKS)

QUESTIONS ONE (30 MARKS)

The managing director of a company, established before the error of technology is facing a problem. The company that was initially profitable and attracted very many graduates to work with is currently unprofitable. It is operating, in the Managing Director's (MD) opinion, inefficiently. The company offers a wide range of Food service facilities including restaurants, hotels and cafe` services in the country, region and worldwide. Initially, the company was the only one and enjoyed monopolist status but with the current technology and the changing world market trends and globalization survival will be more difficult in the future. In particular, many food stores and food service delivery companies are bypassing its services by not only offering door-to-door delivery but also offering the services at affordable rates. In addition, many of the companies that have joined the food service delivery services have stationed themselves in various strategic positions so that customers can reach at their service delivery points at ease. As a research consultant, the MD has commissioned you to undertake a comprehensive study on the firm as a whole to determine possible strategies the company can undertake to face the existing problem.

- a) State an appropriate research title for the research. (2 marks)
- b) Identify a possible research problem from the above case study for a proposed study. (4 marks)
- c) Formulate three possible research objectives and three possible research questions for the proposed study. (6 marks)
- d) In formulating your objectives above, what factors did you take into consideration? (3 marks)
- e) Briefly explain some ways that you would use to improve the following aspects of the study :
 - i. reliability (3 marks)
 - ii. validity (3 marks)
- f) Explain any four ethical considerations that you would bear in mind while conducting your research. (4 marks)
- g) Conceptualize variables in the above situation that could be used in a conceptual framework. (5 marks)

SECTION B: ANSWER ANY TWO QUESTIONS (40 MARKS)

QUESTION TWO (20 MARKS)

Explain:

- a) The purpose of sampling a sample size for a study. (5 marks)
- b) Five purposes of literature review in research proposal. (5 marks)
- c) Four reasons for data analysis. (4 marks)
- d) Six research designs. (6 marks)

QUESTION THREE (20 MARKS)

- a) Explain Five sources of measurement differences in data collection. (10 marks)
- b) Describe how each of the following sampling techniques can be used in data collection: (10 marks)
 - i) Stratified sampling
 - ii) Multistage sampling
 - iii) Cluster sampling
 - iv) Purposive sampling
 - v) Systematic sampling

QUESTION FOUR (20 MARKS)

A recent market survey showed that from a randomly selected sample of people, who use farm mechanization in their land cultivation and other agricultural practices, 155 are women, and 169 are men. You are asked to test the claim that more than half of the users of farm mechanization on their land cultivation are men.

- i) Write down appropriate objectives of the study **(6 marks)**
- ii) Write down the null and alternative hypotheses for the test. **(6 marks)**
- iii) Briefly discuss the logical steps you would take to conduct the above test. **(8 marks)**

Question Five

Develop a prototype research proposal on a topic of your own choice and state your title of the study, the background to the study, the research problem, three research objectives and a justification to the study. **(20 Marks)**