***MOUNT KENYA UNIVERSITY***

***SCHOOL OF PURE AND APPLIED SCIENCES***

***DEPARTMENT OF ANIMAL HEALTH AND PRODUCTION***

***BACHELOR OF EDUCATION (SCIENCE)***

***UNIT CODE:BAG3206***

***UNIT TITLE: AGRICULTURAL RESEARCH METHODS***

***INSTRUCTIONS: ANSWER QUESTION ONE (COMPULSORY) AND ANY TWO QUESTIONS.***

***QUESTION ONE***

1. Explain the basic classification of research . (5 marks)
2. Explain how research contributes to the development of agriculture in Kenya. (5 marks)
3. Describe five major steps you would go through in a research process.(5 marks)
4. Describe the demonstration strip plot design and how it can be applied in agricultural experiments. (5 marks)
5. Explain the following terms as applied in agricultural experiments;
6. Treatment.
7. Factor level.
8. Experimental unit.
9. Dependent variable.
10. Response variable.
11. Explain the nature of hypotheses as applied in agricultural research.(5 marks)
12. Describe experimental error and explain at least two ways an agricultural researcher can use to minimize it in a field experiment. (5 marks)
13. Describe factorial experimental design as applied to agricultural experiments.(5 marks)

QUESTION TWO

1. Describe the following ;
2. Replication.

ii) local control (6 marks)

b)Explain the term randomization and the procedure you would use to randomize a field agricultural experiment. (4 marks)

QUESTION THREE

Describe the common methods of quality of experimental data presentation.(10 marks)

QUESTION FOUR

Explain the common methods of qualitative research data collection in the field.(10 marks)