



MURANG'A UNIVERSITY OF TECHNOLOGY
SCHOOL OF AGRICULTURE AND ENVIRONMENTAL
SCIENCES

DEPARTMENT OF AGRICULTURAL STUDIES

UNIVERSITY ORDINARY EXAMINATION

2023/2024 ACADEMIC YEAR

THIRD YEAR SECOND SEMESTER EXAMINATION FOR BACHELOR
OF SCIENCE IN AGRICULTURAL EDUCATION AND EXTENSION
BHE 308 – RESEARCH METHODS IN AGRICULTURAL EXTENSION

DURATION: 2 HOURS

INSTRUCTIONS TO CANDIDATES:

1. Answer question ONE any other two questions.
2. Mobile phones are not allowed in the examination room.
3. You are not allowed to write on this examination question paper.

SECTION A – ANSWER ALL QUESTIONS IN THIS SECTION

QUESTION ONE (30 MARKS)

- a) Differentiate between basic and applied research. (2 marks)
- b) Describe Focus Group Discussion design of agricultural research. (4 marks)
- c) Describe five features of good agricultural research. (5 marks)
- d) Explain five types of variables that can be included while conducting agricultural research. (5 marks)
- e) Describe three types of evaluation in agricultural education. (6 marks)
- f) Describe the main content of a good research proposal, provide examples. (8 marks)

SECTION B – ANSWER ANY TWO QUESTIONS IN THIS SECTION

QUESTION TWO (20 MARKS)

- a) Describe four ethical issues that may arise in the research process and ways of addressing them. (8 marks)
- b) Assume you plan to survey the adoption of climate smart agricultural technologies in Murang'a county using three probabilistic sampling methods, scientifically explain how you would select farmers for this survey. (12 marks)

QUESTION THREE (20 MARKS)

- a) Describe four methods useful in presenting results from analysis of research data. (8 marks)
- b) Systematically describe how experimental research design can be used in agriculture, with a suitable example. (12 marks)

QUESTION FOUR (20 MARKS)

- a) Describe four threats to reliability in research in agricultural education and extension. (8 marks)
- b) The government has contracted you to research agricultural extension over time in Kenya. Describe the main sources of data for soil research. (12 marks)