



MACHAKOS UNIVERSITY

University Examinations for 2022/2023 Academic Year

SCHOOL OF AGRICULTURE, ENVIRONMENT AND HEALTH SCIENCES

DEPARTMENT OF AGRICULTURAL SCIENCES

FOURTH YEAR FIRST SEMESTER EXAMINATION FOR

BACHELOR OF SCIENCE (AGRICULTURAL EDUCATION AND EXTENSION)

DATE:

TIME:

INSTRUCTIONS: Answer **Question ONE (Compulsory)** and Any other **Two** Questions.

QUESTION ONE (COMPULSORY 30 MARKS)

- a) Distinguish between the following terms/concepts as they apply to agricultural extension programme development: (5 marks)
- i) Extension goal and extension objective
 - ii) Extension programme and extension work plan
 - iii) Normative needs and expressed needs
 - iv) Interactive participation and self-mobilization
 - v) Primary data sources and secondary data sources
- b) Explain five techniques that can be used to collect data for agricultural extension programme planning. (5 marks)
- c) Tabulate five differences between monitoring and evaluation in agricultural extension practice. (5 marks)
- d) Explain five 21st century competencies that extension practitioners need to possess. (5 marks)
- e) Summarize in five points the benefits of formal networks in extension programme implementation. (5 marks)
- f) Logically present the steps one can follow to come up with a sound evaluation plan in agricultural extension. (5 marks)

QUESTION TWO_(20 MARKS)

- a) With a specific example in each case, explain five opportunities that county governments in Kenya have to develop responsive agricultural extension programmes. (10 marks)
- b) Discuss five measures that the Ministry of Agriculture and Livestock Development in Kenya can use to meet smallholder farmers information and knowledge needs.(10 marks)

QUESTION THREE (20 MARKS)

- a) Discuss five benefits of a comprehensive needs assessment exercise in relation to agricultural extension programme development. (10 marks)
- b) Explain five characteristics of a logic model that make it appropriate for use in agricultural extension programme development. (10 marks)

QUESTION FOUR (20 MARKS)

- a) Discuss the phases that an agricultural development project takes. (10 marks)
- b) Explain five good practices in writing an agricultural development project plan. (10 marks)

QUESTION FIVE (20 MARKS)

- a) Discuss five benefits of evaluation of agricultural extension programmes. (10 marks)
- b) Discuss four main categories of stakeholders who can be involved in formative evaluation of an agricultural development intervention to commercialize smallholder farms in a rural community. (10 marks)