



**MACHAKOS UNIVERSITY**  
University Examinations for 2022/2023 Academic Year

**SCHOOL OF AGRICULTURE, ENVIRONMENT AND HEALTH SCIENCES**  
**DEPARTMENT OF AGRICULTURAL SCIENCES**  
**SECOND YEAR SECOND SEMESTER EXAMINATION FOR**  
**BACHELOR OF SCIENCE (AGRICULTURAL EDUCATION AND EXTENSION)**  
**AEE 322: PRINCIPLES OF AGRICULTURAL EXTENSION**

**DATE:**

**TIME:**

---

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

**QUESTION ONE: COMPULSORY (30 MARKS)**

- a) Describe the aim of agricultural extension service delivery in Kenya. (3 marks)
- b) Explain four roles of Information Communication and Technology (ICT) in agricultural extension (4 marks)
- c) Explain the importance of gender mainstreaming in agricultural extension (4 marks)
- d) Giving one example in each case, describe three organizations that are involved in agricultural extension in Kenya. 6 marks
- e) Explain two types of indicators that are used to monitor agricultural extension programmes (4 marks)
- f) Explain five factors that influence privatization of agricultural extension services (5 marks)
- g) Describe four ways of improving lecture method effectiveness in training of farmers

**QUESTION TWO (20 MARKS)**

- a) Discuss why use of bottom-up approach in agricultural extension services delivery is considered more effective than top-down approach. (10 marks)
- b) Compare formal extension education with non-formal extension education. (10 marks)

**QUESTION THREE (20 MARKS)**

Giving one example in each case, discuss ten challenges facing agricultural extension in Kenya under devolved county governments

**QUESTION FOUR (20MARKS)**

- a) Explain the two functions of agricultural extension in Kenya (2 marks)
- b) Discuss agricultural extension teaching methods under the following subheadings
  - i. Individual farmer methods (6 marks)
  - ii. Group methods (6 marks)
  - iii. Mass methods. (6 marks)

**QUESTION FIVE (20 MARKS)**

- a) Discuss three emerging issues in Agricultural Extension (6 marks)
- b) Analyze seven Participatory Rural Appraisal (PRA) techniques used in agricultural extension to identifying community's resources (14 marks)