



# MACHAKOS UNIVERSITY

University Examination for 2023/2024 Academic Year

SCHOOL OF AGRICULTURE AND NATURAL RESOURCES

DEPARTMENT OF ENVIRONMENTAL SCIENCES

THIRD YEAR FIRST SEMESTER EXAMINATION FOR

BACHELOR OF SCIENCE (COMMUNITY RESOURCE MANAGEMENT)

CRM 302: COMMUNITY APPROPRIATE TECHNOLOGIES AND INNOVATIONS

**DATE:** \_\_\_\_\_

**TIME:** \_\_\_\_\_

**INSTRUCTIONS: Answer QUESTION ONE and any other TWO QUESTIONS.**

## QUESTION ONE

- a) Differentiate between the following terms:
- i. Appropriate technology and innovation (4marks)
  - ii. Technology hardware and Technology software (4marks)
- b) Explain factors that influence technological change in a community (12marks)
- c) Describe five examples of appropriate technology in your community (10marks)

## QUESTION TWO

- a) Describe five strategies you would apply in order to for you to successfully introduce a new technology to your community (10marks)
- b) Discuss five attributes of technology that influence its adoption into a community (10marks)

## QUESTION THREE (20 MARKS)

Discuss the process of adoption and categories of adopters of technology in a community

## QUESTION FOUR

- a) Discuss five characteristics of social innovation process (10marks)
- b) Discuss five roles of social innovation on environmental protection (10 marks)

## QUESTION FIVE

- a) As an employee of drylands Natural Resources Centre (DNRC) in charge of sustainability programs, you have been tasked to promote Appropriate Technologies among the farmers you are working with. Giving examples. Discuss five anticipated barriers of adoption of Appropriate Technologies (10marks)
- b) During the last three decades, both developing and developed countries have been confronted by problems rooted mainly on technology. Describe five major technology challenges facing developing countries (10marks)