



# **MACHAKOS UNIVERSITY**

**University Examinations for 2019/2020 Academic Year**

**SCHOOL OF HUMANITIES AND SOCIAL SCIENCES**

**DEPARTMENT OF HUMANITIES**

**THIRD YEAR FIRST SEMESTER EXAMINATION FOR**

**BACHELOR OF SCIENCE IN COMMUNITY RESOURCE MANAGEMENT**

**HCM 306: COMMUNITIES APPROPRIATE TECHNOLOGY AND INNOVATIONS**

**DATE: 11/12/2019**

**TIME: 2.00-4.00 PM**

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## **INSTRUCTIONS:**

This paper consists of **five questions**.

Answer Question 1 and any other **two** questions

Question 1 carries 30 marks

Question 2-5 carry 20 marks each

### **QUESTION ONE (30 MARKS)**

- a) Explain to differentiate the following terms
  - i) Appropriate Technology and Innovation (4 marks)
  - ii) Technology hardware and technology software (4 marks)
  - iii) Give four (4) examples of appropriate technologies (4 marks)
- b) Describe three (3) ways in which innovation come about (6 marks)
- c) Outline three (3) characteristics of new media technologies (6 marks)
- d) Giving examples, explain agro ecological technology as applied by smallholder farmers for food production (6 marks)

### **QUESTION TWO (20 MARKS)**

- a) As a manager of a newly established NGO, Discuss five (5) effective ways you will apply to foster innovation in the organization (10 marks)
- b) Neem and Turmeric use for medicinal purposes are considered as appropriate technology originating from indigenous knowledge. Outline their uses in medical field (10 marks)

**QUESTION THREE (20 MARKS)**

Giving examples, discuss 5 benefits of appropriate technologies as discussed in class.

**QUESTION FOUR (20 MARKS)**

Citing examples, describe lactic fermentation as an appropriate technology applied in food preservation

**QUESTION FIVE (20 MARKS)**

- a) As an employee of Drylands Natural Resources Centre (DNRC) in charge of sustainability program, you have been tasked to promote appropriate technologies among the farmers you're working with. Giving examples. Discuss five (5) anticipated barriers of adoption of appropriate technology (10 marks)
- b) During the last 3 decades, both developing and developed countries have been confronted by problems rooted mainly on technology. Describe 5 major technology challenges facing developing countries (10 marks)