



(University of Choice)

**MASINDE MULIRO UNIVERSITY OF
SCIENCE AND TECHNOLOGY
(MMUST)**

**MAIN CAMPUS/ODEL
DEPARTMENT OF AGRIBUSINESS MANAGEMENT AND EXTENSION**

**UNIVERSITY EXAMINATIONS
2021/2022 ACADEMIC YEAR**

**SECOND YEAR SEMESTER TWO
FOR THE DEGREE OF AGED ---ODEL
(MAIN EXAMINATION)**

**COURSE CODE: ACR 201
COURSE TITLE: PRINCIPLES OF CROP PRODUCTION**

DATE: 26/4/2022

TIME: 3-5PM

INSTRUCTION TO CANDIDATES

Answer Question ONE and any other TWO Questions

TIME: 2 hours

MMUST observes ZERO tolerance to examination cheating

This paper consists of TWO printed pages. Please Turn Over

QUESTION 1.

- a) Define a crop pest and explain any THREE categories of crop pests (3marks)
- b) State any FOUR environmental factors that affect crop growth and yields (4 marks)
- c) Define seed dormancy and explain TWO measures of overcoming seed dormancy(3marks)
- d) What are the functions of Kenya Agricultural and Livestock Research Organization (KALRO) (2marks)?
- e) Describe any FOUR types of plant disease pathogens (4 marks)
- f) Describe THREE types of tillage (3 marks)
- g) Describe the methods of crop improvement 3marks
- h) Describe the problems that result from storing grains with high moisture (3marks)
- i) Define Land Equivalent Ratio (LER) and its implication in any intercropping system (2marks)
- j) Describe benefits of proper spacing in crops(3marks)

QUESTION 2.

Assume you are an agricultural advisor in KAKAMEGA county where some maize farmers have been growing the crop but have perennially been harvesting a paltry low yields per acre. There exist shortcomings that need REMEDIES for the realization of optimal yields by the farmers. What advice will you offer to this farmers? (20marks)

QUESTION 3.

- a) State and explain methods of planting crops (5marks)
- b) Crop pests are a major cause of food insecurity in developing countries. Outline measures that should be applied to curb their effect on food loss?(15 marks)

QUESTION 4.

- a) Describe the process of production of hybrid seed (8mks)
- b) Describe the agro ecological zones (AEZs) and their implication on crop distribution in Kenya (12mks)

QUESTION 5.

- a) Briefly explain any five (5) methods of fertilizer application in crop production(5marks)

- b) Outline the Classification of weeds based on life cycle, habitat, growth habit, morphology and climate (15marks)