



(Knowledge for Development)

KIBABII UNIVERSITY

UNIVERSITY EXAMINATIONS 2020/2021 ACADEMIC YEAR

SECOND YEAR 2ND SEMESTER MAIN EXAMINATIONS

**FOR THE DEGREE OF BACHELOR OF SCIENCE AGRICULTURE
EDUCATION AND EXTENSION**

COURSE CODE: ACR 222
COURSE TITLE: ANNUAL CROPS

DATE: 4TH OCTOBER 2021

TIME: 9 – 11 AM

INSTRUCTIONS TO CANDIDATES

Answer Question ONE and any other TWO Questions.

TIME: 2 Hours

This paper consists of 2 printed pages. Please Turn Over



KIBU observes ZERO tolerance to examination cheating

1. (a) A farmer in Transzoia was advised to use Mavuno NPK 17:30:15 on his 3-acre Maize farm at planting. The recommended rate was 45 Kg P₂O₅ per hectare.

(i) How much fertilizer did the farmer purchase in 50 kg bags? (2 marks)

(ii) How much Nitrogen (N), Phosphorus (P₂O₅) and Potassium (K₂O) was applied in Kg per acre respectively? (6 marks)

(iii) Briefly explain the choice of NPK 17:30:15 over Diammonium phosphate (DAP 18:46:0) in (a) above. (2 marks)

(b) With specific reference to the origin of cultivated crops, state two distinguishing characteristics in each of the following: -

(i) Centers of origin (2 marks)

(ii) Centers of diversity (2 marks)

(iii) Centers of domestication (2 marks)

(iv) State the center of origin for each of the following crops (4 marks)

Soybean, Rice, Wheat and Cotton

(c) Briefly describe harvesting and curing of Tobacco (*Nicotiana tabacum*)(10 marks)

2. Describe the annual crops production systems practiced in Kenya stating the merits and demerits in each case. (20 marks)

3. One of the main causes of food insufficiency in East Africa is the high prevalence of storage pests. Exhaustively discuss this statement giving specific examples. (20 marks)

4. Discuss the management strategies employed in control of diseases and pests of economic importance in Irish potato (*Solanum tuberosum*). (20 marks)

5. State and clearly explain the principles of preventive storage protection in agricultural crops. (20 marks)