(Knowledge for Development)

KIBABII UNIVERSITY

UNIVERSITY EXAMINATIONS

2021/2022 ACADEMIC YEAR

THIRD YEAR SECOND SEMESTER

MAIN EXAMINATION

FOR THE DEGREE OF BACHELOR OF SCIENCE IN EDUCATION AND EXTENSION

COURSE CODE: ACR 324

COURSE TITLE: CROP PROTECTION

DATE: 6TH SEPTEMBER 2022   **TIME:**   2 – 4 PM

INSTRUCTIONS TO CANDIDATES

Answer Question One and Any other TWO (2)

TIME: 2 Hours

This Paper Consists of **2 Printed Pages**. Please Turn Over. ▶

QUESTION ONE: (COMPULSORY) (30 MKS)

a. Define the following terminologies as applied in crop pathology
   i.   Host   (2 MARKS)
   ii.   Necrotroph   (2 MARKS)
   iii.   Hemibiotroph   (2 MARKS)
   iv.   Obligate pathogen   (1 MARKS)
   v.   Facultative pathogen   (2 MARKS)
   vi.   Remote Sensing   (2 MARKS)
b. Diseases can be classified into two categories based on the causal agents. Describe the TWO categories   (6 MARKS)
c. List any FOUR characteristics features of weeds that help their better establishment and development.   (4 MARKS)
d. List THREE methods of plant disease control.   (3 MARKS)
e. List the THREE main body parts of an insect body. (3 MARKS)
f. List THREE harmful insects to crops   (3 MARKS)

QUESTION TWO   (10 MARKS)

a. Describe the FIVE classes of Fungicides
b. Explain the following methods of pest control
   i.   Biological Pest Control   (2 MARKS)
   ii.   Cultural practices   (4 MARKS)
   iii.   Crop rotation   (4 MARKS)

QUESTION THREE

The disease cycle is a series of definite events, which lead to the disease development and pathogen propagation. Describe these events.   (20 MARKS)

QUESTION FOUR

a. Outline FIVE types of insect pests that cause damage through Injury by piercing and sucking pests.   (5 MARKS).
b. Briefly discuss insect anatomy under the following sub-titles
   i.   Nervous System   (3 MARKS)
   ii.   Respiratory system   (3 MARKS)
   iii.   The digestive and excretory systems   (3 MARKS)
   iv.   Circulatory system   (3 MARKS)
   v.   Reproductive system   (3 MARKS)

QUESTION FIVE

a. Describe TWO categories of pests based on Pest-Host association.   (10 MARKS)
b. Weeds cause greater losses in crop yields than either insects or plant diseases. Describe any FIVE ways through which weeds cause these losses.   (10 MARKS)