



UNIVERSITY OF EMBU

2016/2017 ACADEMIC YEAR

SECOND SEMESTER EXAMINATION

**SECOND YEAR EXAMINATION FOR THE DEGREE OF BACHELOR OF
SCIENCE IN AGRICULTURE AND BACHELOR OF SCIENCE IN
HORTICULTURE**

ACP 203: PRINCIPLES OF WEED SCIENCE

DATE: APRIL 5, 2017

TIME:11:00AM-1:00PM

INSTRUCTIONS:

Answer Question ONE and ANY other TWO Questions

QUESTION ONE

- a) List and describe three types of weed-crop mimicry [3 Marks]
- b) What do you understand by the term weed quarantine [2 Marks]
- c) Define the following terms as used in weed science:
- (i) Biennial weeds [2 Marks]
 - (ii) Acidophiles [2 Marks]
 - (iii) Niche [2 Marks]
 - (iv) Exotic weeds [2 Marks]
- d) Differentiate between the following:
- (i) Herbaceous versus woody weeds [3 Marks]
 - (ii) pernicious weeds versus noxious weeds [3 Marks]
 - (iii) Monoecious versus dioecious weed species [3 Marks]
- e) Give four main methods of weed seeds dispersal [4 Marks]
- f) Many weed species are prolific. Explain and expound. [4 Marks]
-

QUESTION TWO

Maize farming in western and coastal Kenya regions has faced serious problems due to the occurrence of witchweed (*Striga spp*). Briefly discuss the validity of this statement under the following sub headings:

- a) *Striga* weed seed production and propagation [5 Marks]
- b) *Striga*-maize crop competition interactions [5 Marks]
- c) Suitable soil fertility management options for *Striga* infested farms [5 Marks]
- d) Maize breeding for resistance and tolerance to *Striga* in Kenya [5 Marks]

QUESTION THREE

- a) Discuss the harmful economic importance of weeds to man [10 Marks]
- b) Giving specific examples, discuss the classification of weeds based on life-cycle. [10 Marks]

QUESTION FOUR

Using specific examples to illustrate your answer, discuss weed-crop competition under the following sub topics:

- a) Asymmetric competition [5 Marks]
- b) Niche differentiation [5 Marks]
- c) Competition for Light [5 Marks]
- d) Critical period of weed-crop competition (CPWC) [5 Marks]

QUESTION FIVE

Herbicide resistance in weeds pose a new problem in chemical weed management strategies in the world today. Discuss giving specific examples. [20 Marks]

END