



UNIVERSITY OF EMBU

2019/2020 ACADEMIC YEAR

SUPPLIMENTARY/SPECIAL EXAMINATIONS

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: OCTOBER 26, 2020

TIME: 2:00 PM – 4:00 PM

INSTRUCTIONS

Answer Question ONE and ANY other TWO (2) Questions

QUESTION ONE (30 MARKS)

- a) Explain the following terminologies as commonly used in weed science:
- i) Weed seed dormancy (2 marks)
 - ii) Mimicry (2marks)
 - iii) Weed Quarantine (2 marks)
 - iv) Soil Solarization (2 marks)
- b) Explain the recent worldwide developments in the use of allelochemicals for weed management (4 marks)
- c) Give three important perennial weeds in Kenyan farming areas and briefly discuss the main mode of asexual reproduction for each of them (5 marks)
- d) Man is an agent in weed seeds dispersal. Discuss using appropriate examples (5 marks)
- e) Distinguish between adjuvant and emulsifier in herbicide usage (4 marks)
- f) Discuss the plasticity nature of weeds (4 marks)

QUESTION TWO (20 MARKS)

- a) Discuss the adaptive mechanisms of weed seed dispersed by wind (10 marks)
- b) Explain the external factors that affect dormancy of weed seeds (10 marks)



ISO 27001:2013 Certified

Knowledge Transforms



ISO 9001:2015 Certified

QUESTION THREE (20 MARKS)

- a) Describe the main characteristics that make weeds invasive and persistent in the environment
(6 marks)
- b) You have been appointed as a weed extension specialist in an agricultural oriented County and you want to prepare a bulletin for educating small-scale farmers on importance of different types of cultural weed control methods. Develop key messages you would include in the bulletin
(14 marks)

QUESTION FOUR (20 MARKS)

Discuss the following weed-crop interactions and explain how farmers can overcome them

- a) Competition (8 marks)
- b) Allelopathy (6 marks)
- c) Parasitism (6 marks)

QUESTION FIVE (20 MARKS)

- a) As a trained weed scientist, elaborate on the main considerations you would give to a smallholder farmer in order to convince him/her to consider using chemical weed control against the traditional mechanical methods currently in use
(10 marks)
- b) Using an appropriate example, discuss a noxious persistent weed found in a specified Kenyan cropping situation and examine the future of its management by the local affected farming community there
(10 marks)

