KISII UNIVERSITY
UNIVERSITY EXAMINATIONS

SECOND YEAR EXAMINATION FOR THE AWARD OF THE DEGREE OF BACHELOR OF SCIENCE IN AGRICULTURE
SECOND SEMESTER, 2023/2024
(JANUARY-APRIL, 2024)

AGRO 234: WEED SCIENCE

STREAM: Y2 S2   **TIME: 2 HOURS**

DAY: FRIDAY, 12:00 – 2:00 P.M.   **DATE: 12/04/2024**

INSTRUCTIONS
1. *Do not write anything on this question paper.*
2. *Answer Question ONE (Compulsory) and any Other TWO Questions.*

QUESTION ONE (COMPULSORY) (40 MARKS)

(a) Explain the following terms as used in weed science:
   (i) Weed.   (2 marks)
   (ii) Herbicide.   (1 mark)
   (iii)Active ingredient (ai).   (1 mark)

   (iv)Environment.   (1 mark)
   (v) Allelopathy.   (2 mark)

(b) Explain the term "*biological weed control*", citing two examples. (2 marks)

(c) Discuss any two agents by which weed seeds are disseminated. (2 marks)

(d) Explain three main modes of propagation in weeds.   (3 marks)

(e) Discuss cultural weed control methods.   (3 marks)

(f) Weeds can be classified on the basis of soil pH. Discuss.   (3 marks)

(g) Discuss natural resources that crops and weeds compete for.   (4 marks)
(h) Discuss natural agents of weed dispersal.   (4 marks)

(i) Discuss groups of weeds based on ontogeny/ life cycle.   (6 marks)

(j) Discuss the characteristic features of weeds that make them out-compete cultivated crops. (6 marks)

QUESTION TWO (15 MARKS)
(a) Discuss plant factors that influence allelopathy. (3 marks)
(b) Explain four growth stages for cereal crops. (4 marks)
(c) When the weeds are in low densities, some weeds have been found to be useful to man. Discuss. (8 marks)

QUESTION THREE (15 MARKS)
(a) Discuss the negative effects of weeds in a farm set-up. (7 marks)

(a) Discuss any four climatic factors that affect persistence of weeds. (8 marks)

QUESTION FOUR (15 MARKS)
(a) Distinguish between noxious and objectionable weeds. (2 marks)

(b) Discuss common types of modifications in vegetative reproduction in weeds. (3 marks)

(c) In crop-weed competition, a number of factors affect the competitive ability of crops against weeds significantly. Discuss any five of these factors. (10 marks)