



THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

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MAIN EXAMINATION

JANUARY – APRIL 2015 TRIMESTER

FACULTY OF SCIENCE

DEPARTMENT OF NATURAL SCIENCES (BIOLOGY)

REGULAR PROGRAMME

BIO 415: PLANT – ANIMAL INTERACTION

Date: April 2015	Duration: 2 Hours
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Instructions: Answer Question ONE and any other TWO Questions.

- Q1. a) Define the following terms and give an example in case
i) Co-evolution
ii) Mutualism
iii) Pollination Syndromes
(6 marks)
- b) State TWO costs incurred by animal pollinated flowers and how plants deal with these costs.
(2 marks)
- c) Citing examples give 3 reasons why plant animal interactions are important to a farmer.
(3 marks)
- d) Briefly explain the factors that influence the allocation of plant defenses.
(4 marks)
- e) With the help of an illustration, briefly discuss Janzen connel hypothesis and give its relevance to continued existence of tropical forests.
(6 marks)
- f) Distinguish between moth, butterfly and bee pollinated flowers.
(9 marks)
- Q2. Discuss herbivory offenses against plant defenses.
(20 marks)
- Q3. Discuss in details the benefits and loses plants and animals derive from their interactions.
(20 marks)
- Q4. Evaluate seed dispersal by animals, indicating the co-evolution shown by the plant-animals involved.

- Q5. a) Stating named examples, discuss plant carnivory. **(20 marks)**
- b) Explain the predator – prey interactions with reference to plant-animal relations. **(10 marks)**
- (10 marks)**

END