



**EMBU UNIVERSITY COLLEGE**  
**(A CONSTITUENT COLLEGE OF THE UNIVERSITY OF NAIROBI)**

**TRIMESTER EXAMINATIONS 2013/2014**

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

**AAS 202: ANIMAL GENETIC RESOURCES**

**DATE: AUGUST 13, 2014**

**TIME: 11.00AM – 1.00PM**

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**INSTRUCTIONS:**

**Answer Question ONE and ANY Other TWO**

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**QUESTION ONE**

- a) i) Explain how climate change affects Animal Genetic Diversity (2 marks)  
ii) Describe the significance of studying the origin of a species? (2 marks)
- b) Define the following terms as applied to Animal Genetic Resources:
- i.) Feral animal
  - ii.) Cryopreservation
  - iii.) Population bottleneck
  - iv.) Genetic erosion (4 marks)
- c) What is the main purpose of the “Interlaken declaration” on Animal Genetic Resources? (3 marks)
- d) Discuss 4 main causes for the increasing Human-wildlife conflict in Kenya (4 marks)

- e) List 5 barriers to implementing animal conservation programmes in Kenya (5 marks)
- f) Define *ex-situ* conservation and its advantages (4 marks)
- g) Describe the role of Animal Genetic Diversity in environmental sustainability (3 marks)
- h) Name three key stakeholders in management of animal genetic resources in Kenya (3 marks)

### **QUESTION TWO**

Discuss threats to conservation of Animal Genetic Resources (20 marks)

### **QUESTION THREE**

- a) Explain various animal genetic resource conservation methods (10 marks)
- b) Compare an animal gene bank with a crops gene bank (10 marks)

### **QUESTION FOUR**

- a) Write an essay on national, regional and global collaborations and policies governing the management of Animal Genetic Resources (12 marks)
- b) Discuss the challenges associated with management of Animal gene banks (8 marks)

### **QUESTION FIVE**

- a) Discuss semen collection under the following sub-headings: (12 marks)
- i.) Animal preparation
  - ii.) Collecting methods
  - iii.) Precautions in handling semen
- b) Discuss steps in characterisation of domestic animal genetic resources (8 marks)

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