

**CHUKA**



**UNIVERSITY**

**COLLEGE**

**UNIVERSITY EXAMINATIONS**

**SECOND YEAR EXAMINATION FOR THE AWARD OF DIPLOMA IN  
ANIMAL HEALTH AND PRODUCTION**

**ANSC 0241: ANIMAL BREEDING**

**STREAM: DIP (ANHPD) Y2S2**

**TIME: 2 HOURS**

**DAY/DATE: THURSDAY 16/12/2010**

**11.30A.M.-1.30P.M.**

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**INSTRUCTIONS:**

Attempt all questions.

1. Briefly distinguish between the following terms as used in genetics.
  - (a) Dominance and recessiveness. [3 marks]
  - (b) Allele and gene. [2 marks]
  - (c) Qualitative and quantitative traits. [3 marks]
  - (d) Heredity and Repeatability. [2 marks]
  - (e) Outbreeding and inbreeding. [3 marks]
  - (f) Genotype and phenotype. [2 marks]
  
2.
  - (a) Outline giving a brief discussion the advantages of Artificial insemination in the dairy sector. [10 marks]
  - (b) Give five ways by which a breeder can collect semen from a male animal. [5 marks]
  
3. (a) What do you understand by the following terms:
  - (i) Concept of segregation [3 marks]
  - (ii) Independent assortment [3 marks]
  - (iii) Inheritance [2 marks]
  - (iv) Gene frequency [3 marks]
  - (v) Continous variation [2 marks]
  
- (b) What is qualitative traits in animal breeding? [2 marks]

4. Giving a brief explanation in each case discuss five traits of economic importance in animal breeding. [15 marks]

5. (a) Compare qualitative and quantitative traits in animal breeding using a table. [8 marks]

Quantitative traits	Qualitative traits
(i)	(i)
(ii)	(ii)
(iii)	(iii)
(iv)	(iv)

(b) What is Artificial selection? [2 marks]

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