



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**SCHOOL OF AGRICULTURAL AND FOOD SCIENCES**  
**UNIVERSITY EXAMINATION FOR DEGREE OF BACHELOR OF SCIENCE IN**  
**ANIMAL SCIENCE**  
**2<sup>ND</sup> YEAR 1<sup>ST</sup> SEMESTER 2018/2019 ACADEMIC YEAR**  
**REGULAR**

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**COURSE CODE: AAS 3214**

**COURSE TITLE: ANIMAL GROWTH AND DEVELOPMENT**

**EXAM VENUE:** **STREAM: (BSc. Animal Science)**

**DATE:** **EXAM SESSION:**

**TIME: 2HOURS**

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**Instructions**

- 1. Answer ALL questions in Section A (compulsory) and ANY TWO questions in Section B**
- 2. Candidates are advised not to write on the question paper**
- 3. Candidates must hand in their answer booklets to the invigilator while in the examination room**

**SECTION A [30 MARKS]**

**Answer ALL questions from this Section.**

1. a) Define;
    - i. Growth. (2 Marks)
    - ii. Adipocytes (2 Marks)
    - iii. Chondrocytes (2 Marks)
  - b) Differentiate Dam from Sire. (2 Marks)
  - c) Outline homeostasis. (2 Marks)
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2. a) Explain the three ways growth can occur. (6 Marks)
  - b) Highlight how castration affects growth and development. (4 Marks)
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3. a) Compare and contrast differences in true growth and fattening (4 Marks)
  - b) List four hormones which affect growth and development. (2 Marks)
  - c) Briefly outline environmental factors that influence phenotype of an animal. (4 Marks)

**SECTION B [40 MARKS]**

**Answer ANY TWO questions from this Section.**

4. a) Factors affecting adipose tissue growth, development and metabolism. (10 Marks)
  - b) With examples discuss abnormal growths (10 Marks)
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5. a) Nutritional regulation of prenatal growth. (10 Marks)
  - b) There are potential benefits in using compensatory growth. Discuss how compensatory growth can be used in beef production. (10 Marks)
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6. Discuss factors affecting growth and development. (20 Marks)