

# MACHAKOS UNIVERSITY

University Examinations for 2017/2018 Academic Year

**SCHOOL OF AGRICULTURAL SCIENCES**

DEPARTMENT OF AGRICULTURAL EDUCATION AND EXTENSION

**THIRD YEAR SECOND SEMESTER EXAMINATION FOR BACHELOR OF SCIENCE  
IN AGRICULTURAL EDUCATION AND EXTENSION**

## KRM 307: NON-RUMINANT HUSBANDRY

**DATE: 5/12/2017**

**TIME: 8.30-10.30 AM**

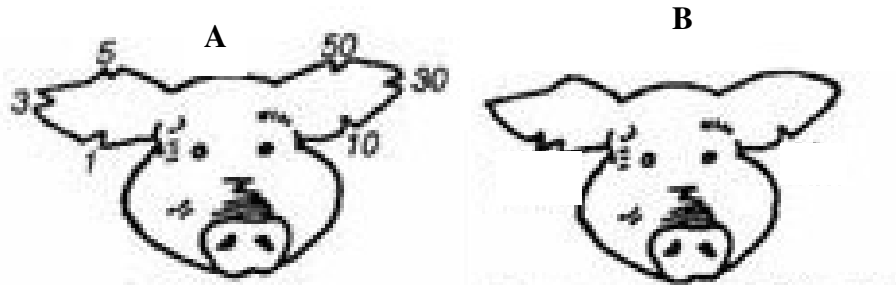
### Instructions:

**Answer ALL questions in section A and ANY TWO questions in section B**

### SECTION A: 30 MARKS

### QUESTION ONE (30 MARKS)

- a) Explain the cause of the following behavioral activities
- i. Swarming in bees (2 marks)
- ii. Caecotrophy in rabbits (2 marks)
- b) Using the ear notching code in figure A below,
- i. Identify pig B (1mk)



- ii. Explain **TWO** disadvantages of using this method of identification (2 marks)

- c) Explain **FOUR** characteristics to be considered when selecting fish species for aquaculture (4 marks)
- d) A farmer practicing natural incubation for his indigenous chicken has reported low hatching percentages. Explain **FOUR** probable causes for this. (4 marks)
- e) Pigs have few sweat glands and will encounter problems in regulating their body temperature. Explain **TWO** management practices to reduce heat stress in the pig house. (4 marks)
- f) Worker bees and the queen bees are both female. Explain **THREE** external features that distinguish their roles. (3 marks)
- g) Explain **FOUR** benefits of record keeping in non-ruminant livestock farms (4 marks)
- h) Explain **FOUR** ways to control disease outbreaks in poultry. (4 marks)

## **SECTION B: 40 MARKS**

### **QUESTION TWO (20 MARKS)**

- a) A farmer wants to practice modern bee keeping. Propose **FIVE** factors he needs to consider in planning for the apiary site. (10 marks)
- b) Identify **FIVE** effects resulting from the absence of a queen in a bee colony (10 marks)

### **QUESTION THREE (20 MARKS)**

- a) Explain the role of water quality in aquaculture (10 marks)
- b) Explain **FIVE** market factors to be considered before starting fish farming (10 marks)

### **QUESTION FOUR (20 MARKS)**

- a) Explain **FIVE** factors to consider when selecting a breeding gilt (10 marks)
- b) Describe the management of chicks from day one to 8 weeks old (10 marks)

### **QUESTION FIVE (20 MARKS)**

- a) Explain **FIVE** advantages of keeping rabbits (10 marks)
- b) Describe feed requirements for rabbits (10 marks)