



# MACHAKOS UNIVERSITY

University Examinations for 2018/2019 Academic Year

SCHOOL OF AGRICULTURAL SCIENCES

DEPARTMENT OF AGRICULTURAL EDUCATION AND EXTENSION

THIRD YEAR SPECIAL/SUPPLEMENTARY EXAMINATION FOR

BACHELOR OF SCIENCE IN AGRICULTURAL EDUCATION AND EXTENSION

ANS 302: NON-RUMINANT ANIMAL PRODUCTION

DATE: 23/7/2019

TIME:2.00-4.00 PM

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## INSTRUCTIONS:

Answer QUESTION ONE and any two questions in section B

### QUESTION ONE (30 MARKS)

- a) Explain the importance of the following:-
  - i. Candling of eggs (2 marks)
  - ii. Creep feeding of piglets- (2 marks)
- b) In Ethiopia a queen bee can be sold on market days. Using **TWO** external features explain how the queen bee can be distinguished from a worker bee (2 marks)
- c) Explain **TWO** advantages of using a Langstroth hive as compared to using The Kenya Top Bar Hive (4 marks)
- d) Explain the causes of the following behavior
  - i. Day old brooding chicks crowding at the edges of the brooder guard board. (2 marks)
  - ii. Pregnant rabbit does plucking fur or hair from their bellies and sides. (2 marks)
- e) Explain **FOUR** disadvantages of the 'Cat fish'(*Clarius gariepinus*) as an aquaculture species (4 marks)

- f) Failure to lay eggs is one of the main reasons for culling layers. Explain **FOUR** signs of a non-laying hen (4 marks)
- g) A farmer in Kilimambogo would like to stock Landrace pigs. Describe **TWO** external features that help him distinguish a Landrace pig from a large white pig. (4 marks)
- h) Explain **FOUR** uses of honey (4 marks)

**SECTION B. Answer any TWO questions in this section**

**QUESTION TWO (20 MARKS)**

- a) Describe **FIVE** requirements for the efficient functioning of an incubator (10 marks)
- b) A farmer in katumani has arranged for day old chicks to be brought to his farm. Describe the activities he will do in day1 (10 marks)

**QUESTION THREE (20 MARKS)**

- a) Explain **FIVE** causes of newborn mortality in Piglets (10 marks)
- b) Describe the symptoms and prevention of post weaning diarrhea in piglets (10 marks)

**QUESTION FOUR (20 MARKS)**

- a) Explain **FIVE** constraints faced by beekeepers in Kenya (10 marks)
- b) Explain **FIVE** ways that a beekeeper can prevent swarming in his apiaries (10 marks)

**QUESTION FIVE (20 MARKS)**

- a) Explain **FIVE** reasons for record keeping in rabbit production (10 marks)
- b) Explain **FIVE** management practices for young bunnies (10 marks)