



MACHAKOS UNIVERSITY

University Examinations for 2016/2017

SCHOOL OF AGRICULTURE AND NATURAL RESOURCES MANAGEMENT

DEPARTMENT OF AGRICULTURE EDUCATION AND EXTENSION

FIRST SEMESTER EXAMINATION FOR BACHELOR OF SCIENCE IN
AGRICULTURE EDUCATION AND EXTENSION

KRM 307: NON RUMINANT PRODUCTION

Date: Dec 2016

Time: 2hrs

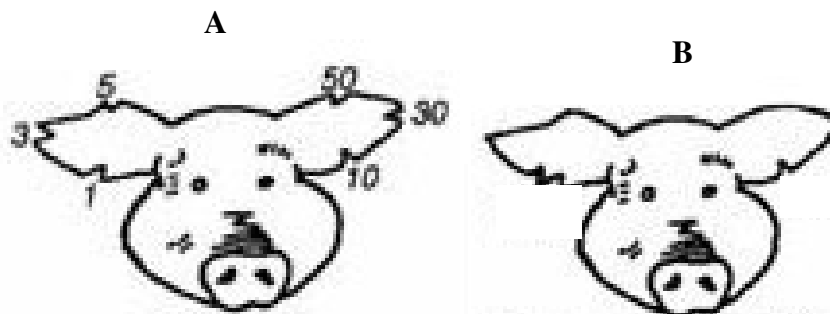
INSTRUCTIONS:

Answer Question One and any Two Other Questions in Section B

SECTION A: 30 MARKS

QUESTION ONE (COMPULSORY) (30 MARKS)

- a) Explain **THREE** circumstances that stimulate worker bees to rear a queen (3 marks)
- b) Explain the importance of the following:-
 - i) Candling of eggs (2 marks)
 - ii) Creep feeding of piglets- (2 marks)
- c) i) Using the ear notching code in figure A below, Identify pig **B** (1 mark)



- ii) Explain **TWO** disadvantages of using this method of identification. (2 marks)
- d) Explain **FOUR** advantages of keeping rabbits over other livestock species. (4 marks)
- e) Explain **FOUR** advantages of keeping poultry in battery cages. (4 marks)
- f) Explain **FIVE** factors to be considered in setting up an apiary (5 marks)
- g) Explain **THREE** constraints facing poultry production in Kenya (3 marks)
- h) Distinguish between
 - i) A sow and a gilt (2 marks)
 - ii) Queen bee and a worker bee (2 marks)

SECTION B: 40 MARKS

QUESTION TWO (20 MARKS)

- a) Explain **FOUR** requirements for the efficient functioning of an incubator. (14 marks)
- b) In a local hatchery 800 out of 1000 eggs were found to be fertile during day 7 of the incubation period. 600 of the fertile eggs hatched.
 - i) Calculate the percentage hatch of total (3 marks)
 - ii) Calculate the percentage hatch of fertile (3 marks)

QUESTION THREE (20 MARKS)

- a) Outline the steps followed when harvesting honey from a top bar hive. (10 marks)
- b) Explain **FIVE** uses for beehive products. (10 marks)

QUESTION FOUR(20 MARKS)

- a) Explain **THREE** factors that affect the reproductive efficiency of the sow. (6 marks)
- b) Explain **SEVEN** problems encountered during farrowing by sows. (14 marks)

QUESTION FIVE(20 MARKS)

- a) Explain **SIX** reasons for keeping records in rabbit production . (12 marks)
- b) Explain **FOUR** ways that can be used to maintain rabbit hutches and equipment. (8 marks)