



**MERU UNIVERSITY COLLEGE  
OF SCIENCE & TECHNOLOGY**

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University Examinations 2011/2012

SECOND YEAR, SECOND SEMESTER EXAMINATION FOR DIPLOMA IN  
AGRICULTURE

**ANS 0230: NON-RUMINANT PRODUCTION**

**DATE: DECEMBER 2011**

**TIME: 1½ HOURS**

**INSTRUCTIONS:** Answer question *one* and any other *two* questions

**QUESTION ONE – (30 MARKS)**

- (a) List ten reasons for keeping farm animals. (5 Marks)
- (b) What are the challenges of keeping farm animals? (2 Marks)
- (c) Why is large white breed often crossed with landrace breed in pig production. (1 Mark)
- (d) Combine commercial breeding and fattening are commonest type of pig production. List four advantages of this system. (2 Marks)
- (e) What are the estrous signs of a pig? (2 Marks)
- (f) What influences the intake of creep feed by a piglet? (2 Marks)
- (g) What are the advantages of deep litter system in poultry rearing? (2 Marks)
- (h) Egg eating and cannibalism are quite devastating vices in a chicken enterprise;
  - (i) What are their causes
  - (ii) How would you reduce their incidence? (4 Marks)
- (i) What are the symptoms of water deprivation in pigs? (2 Marks)
- (j) Why should excess manure in rabbitry be removed promptly? (2 Marks)
- (k) (i) What is the gestation period of a rabbit?
  - (ii) How many litters are acceptable in commercial rabbit keeping? (2 Marks)
- (l) Ostrich Latin name is Struthio Camelus what similarities do camel have with Ostrich. (2 Marks)
- (m) Why is Crocodile meat and leather profitably sustainable in Zimbabwe? (2 Marks)

**QUESTION TWO – (15 MARKS)**

- (a) How would you successfully manage a flock of commercial layers throughout the laying period in a deep litter system? (6 Marks)
- (b) How would you identify the non laying hens? (3 Marks)
- (c) What would cause:
  - (i) Sudden drop in egg produced in a day or two. (2 Marks)
  - (ii) Long fluctuation (gradual) in egg size and number. (4 Marks)

**QUESTION THREE – (15 MARKS)**

The record keeping is an integral part of livestock management:

- (a) Why are records important in livestock production? (2 Marks)
- (b) Name three types of record kept in a pig enterprise. (1½ Marks)
- (c) How do you go about calculating the killing out percentage? (2 Marks)
- (d) What is the interaction between carcass quality and killing out percentage? (2 Marks)
- (e) Study the pig record below and answer questions (i) through (iii)

**SOW NO. 25**

Litter No	Date born	Sire	No. Born		Ave. weight (Kg)			Piglet No. at	
			Alive	Dead	At birth	At 3 wks	At weaning	3 wk	weaning
1	15-1-2004	X32	9	0	1.2	5.4	14.2	8	8
2	20-6-2004	X32	12	1	1.3	4.0	13.1	10	8
3	30-1-2005	B57	13	1	1.6	6.2	15.0	12	11
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9	21-9-2010	Meru Star	8	1	1.2	5.1	13.0	5	4

- (i) What type of record is this? (1 Mark)
- (ii) What impression do you get on the second litter born 20-6-2004 on average weight and number of piglets at 3 weeks and at weaning? (2 Marks)
- (iii) Incidentally these low figures in mid June 2004 was witness in most pig farrowing in the same period.
  - (a) List three possible causes for such weight. (1½ Marks)
  - (b) List five possible reason for such a high piglet mortality (2½ Marks)

(c) How would you improve the survival piglet? (1½ Marks)

**QUESTION FOUR – (15 MARKS)**

(a) List five advantages of bee keeping in the farm. (2½ Marks)

(b) Name three types of bee hives used by Kenyan farmers. (1½ Marks)

(c) Piglet mortality can tremendously reduce the profitability of a pig enterprise:

(i) Discuss five causes for piglet mortality and how you can reduce them. (5 Marks)

(ii) How would you go about increasing the killing out percentage in pig and improving carcass quality through feeding? (6 Marks)

**QUESTION FIVE – (15 MARKS)**

(a) What are the three advantages of keeping rabbits in a farm? (1½ Marks)

(b) What are the challenges of keeping rabbits? (3½ Marks)

(c) Outline the preparations you would make in preparation for day old chick and how you would successful rear them during brooding period 1<sup>st</sup> day to 8 weeks. (10 Marks)