

2425/102
PRINCIPLES OF ANIMAL PRODUCTION I
Oct./Nov. 2010
Time: 3 hours

THE KENYA NATIONAL EXAMINATIONS COUNCIL

**DIPLOMA IN AGRICULTURE
MODULE I**

PRINCIPLES OF ANIMAL PRODUCTION I

3 hours

INSTRUCTIONS TO CANDIDATES

You should have the following for this examination:

Answer booklet.

Answer any FIVE out of the EIGHT questions in this paper.

All questions carry equal marks.

Maximum marks for each part of a question are as indicated.



This paper consists of 3 printed pages.

Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.

Handwritten notes:
 - Nose tag
 - Ear notching
 - Ear tagging
 - Branding

Handwritten notes:
 - Biotic
 - Predisposing factors

Handwritten notes:
 - Abiotic
 - High temp
 - Dampness/moisture

1. (a) Describe **six** ways of identifying livestock. (12 marks)
- (b) Explain the biotic and abiotic predisposing factors of livestock diseases. (8 marks)
2. Differentiate between the following terms as used in livestock diseases:
 - (a) contagious and infectious diseases; (4 marks)
 - (b) quarantine and rigor mortis; (4 marks)
 - (c) septicaemia and oedema; (4 marks)
 - (d) zoonosis and incubation period; (4 marks)
 - (e) aetiology an disease. (4 marks)
3. (a) Describe **two** ways of forage conservation. *Silage/hay.* (10 marks)
- (b) Given maize containing 10% protein and groundnuts containing 45% proteins, formulate a 100 kg ration of 20% protein. Show your working. (10 marks)
4. (a) Name **two** diseases caused by mycoplasma. (2 marks)
- (b) State the causative agents of the following diseases:
 - (i) anthrax;
 - (ii) blackquarter;
 - (iii) brucellosis;
 - (iv) mastitis. (4 marks)
- (c) Explain **four** reasons for keeping livestock healthy. (8 marks)
- (d) Describe the modes of transmission and control of the following diseases:
 - (i) east coast fever;
 - (ii) trypanosomiasis. (6 marks)
5. Discuss anaplasmosis disease of livestock under the following:
 - (a) aetiology; (1 mark)
 - (b) mode of transmission; (3 marks)
 - (c) clinical signs; (5 marks)

Handwritten notes:
 - Trypanosomiasis
 - Anthrax
 - Black quarter
 - Brucellosis



- (d) diagnosis; (2 marks)
- (e) postmortem; (5 marks)
- (f) control and treatment. (4 marks)
6. (a) Describe five factors that affect the gene frequency in a population of animals. (15 marks)
- (b) Name five breeding systems used in livestock management. (5 marks)
7. (a) List six livestock records commonly found in Kenyan farms. (3 marks)
- (b) With one example in each case, define the following terms as used in animal nutrition. (9 marks)
- (i) concentrates;
- (ii) roughages;
- (iii) additives.
- (c) List four general ways of preventing disease. (4 marks)
- (d) Name four viral diseases commonly found in livestock. (4 marks)
8. (a) In a tabular form, state the purpose and the characteristics of each of the following breeds of cattle: (10 marks)
- (i) friesian;
- (ii) hereford;
- (iii) boran;
- (iv) sahiwal.
- (b) In certain breeds of rabbits, the gene for black colour is dominant over the one for white colour. A black rabbit was mated with a white rabbit. About half of the offspring were black and the other half were white. Using letter B to represent the dominant gene and letter b to represent the recessive gene, work out the genotype of the black parent. (10 marks)



Hay -> 50% forward
 -> 20-50% moisture content
 -> harvested 2-3 days before raining
 -> drying should be partial - turn. pulp from in between
 -> ~~store~~ should be stored - stored in ventilation

Now

5/1/2016 - cut & forwarded
 - should be chopped
 - should be stored
 - conditions minimum
 - temp
 - cover with polythene
 - provide water if possible