

2425/102
PRINCIPLES OF ANIMAL PRODUCTION I
June/July 2011
Time: 3 hours



THE KENYA NATIONAL EXAMINATIONS COUNCIL
DIPLOMA IN AGRICULTURE
MODULE 1
PRINCIPLES OF ANIMAL PRODUCTION I
3 hours

INSTRUCTIONS TO CANDIDATES

You should have the following for this examination:

- Answer booklet;
- Calculator;

Answer **FIVE** questions out of **EIGHT** questions.
Each question carries equal marks.
Maximum marks for each part of a question are as shown.



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.

June 2011

1. (a) Enumerate ten signs of disease infection in farm animals. (10 marks)
- (b) (i) State four reasons for maintaining good animal health.
- (ii) Explain three disease preventive measures on the farm. (10 marks)
2. (a) State five factors that determine the size of the silo in silage conservation. (5 marks)
- (b) Use the information below to answer the questions that follow:
- | | | |
|---|---|---------|
| Daily consumption of silage/day/cow | - | 40kgs |
| Duration of the dry period | - | 60 days |
| Number of cows to be fed | - | 5 |
| Weight of 1m ³ of ensiled material | - | 500kg |
- Determine:
- (i) The total amount in Kgs required for the dry season feeding.
- (ii) The number of m³ of silage required.
- (iii) If the silo is 2m wide and 1m deep, calculate the length required. (6 marks)
- (c) Highlight:
- (i) Five sources of nutritional loss during hay making process;
- (ii) Advantages of baling hay. (9 marks)
3. (a) State the meaning of the following:
- (i) Range lands
- (ii) Range management
- Irrigation - collection of seed grasses (10 marks)
- production of drought resistant crops.
- (b) Highlight the management strategies that pastoralist should adopt in minimizing drought related losses. - Adapted breeds of animal - Improved method of collection
- Resistant disease crop - Irrigation method of collection - water and soil conservation (10 marks)
- (c) Explain the significance of the following range management practices:
- (i) Bush control; - Burning - prevention
- (ii) Water distribution; - construction of dams, improved method of water conservation
- (iii) Reseeding. - collection of grass seeds (6 marks)



4. (a) Describe the following in animal production.
- (i) requirements of livestock housing;
 - (ii) hand milking procedure. (12 marks)

- (b) Describe the following management practices:
- (i) Drenching;
 - (ii) Identification. (8 marks)

5. Discuss East Coast Fever (E.C.F.) and Contagious Caprine Pleuro Pneumonia (CCPP) under the following:

- (i) Transmission / causative agent;
- (ii) Signs and symptoms;
- (iii) Prevention and control. (20 marks)

6. Explain the following animal production systems:

- (i) Feedlot; - *place where young animals are kept to gain weight before they are sent to market*
- (ii) Intensive; - *high intensity system where animals of high production are kept in large pens in search of feed*
- (iii) Pastoral; - *subdivision of husbandry from plain to hilly areas*
- (iv) Semi-intensive. - *combination of both Extensive and intensive units, it is where mixed farm and home is adopted* (20 marks)

7. (a) Identify the various classes of feed stuff. (2 marks)

- (b) Explain how the following influence feed intake in animals:
- (i) Feed factors;
 - (ii) Animal factors. (18 marks)

8. (a) Explain the term selection in animal breeding. (8 marks)

- (b) Explain the following as used in animal breeding:
- (i) Out crossing;
 - (ii) Crossbreeding;
 - (iii) Inbreeding;
 - (iv) Hybrid vigour;
 - (v) Heterosis;
 - (vi) Heritability (12 marks)

