

2425/102
ANIMAL PRODUCTION I
June/July 2017
Time: 3 hours



THE KENYA NATIONAL EXAMINATIONS COUNCIL

**DIPLOMA IN AGRICULTURE
MODULE I**

ANIMAL PRODUCTION I

3 hours

INSTRUCTIONS TO CANDIDATES

*This paper consists of EIGHT questions.
Answer any FIVE questions in the answer booklet provided.
All questions carry equal marks.
Maximum marks for each part of a question are indicated.
Candidates should answer the questions in English.*



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.**

1. (a) Define the following terms:

- (i) epistasis; -
- (ii) pleiotropy; -
- (iii) dominance; -
- (iv) recessive; -
- (v) phenotype; -

(5 marks)

(b) Explain progeny testing with respect to:

- (i) situations in which it is used;
- (ii) requirements for effective testing.

(9 marks)

(c) Describe the individual selection method.

(6 marks)

2. (a) Highlight any **five** sanitary measures taken to protect a healthy herd from diseases.

(10 marks)

(b) Describe anthrax in cattle with respect to:

- (i) causative agent;
- (ii) symptoms;
- (iii) control.

Bacillus anthracis
 good housing
 proper feeding
 good hygiene
 regular vaccination

(10 marks)

3. (a) Explain how a calf is trained for bucket feeding.

(10 marks)

(b) Outline good hand milking procedure.

(10 marks)

4. (a) Give the importance of livestock to man.

(6 marks)

(b) (i) Define the term 'production system'.

(ii) Name **four** livestock production systems.

(6 marks)

(c) Explain the grazing management in a sown pasture land in rangelands.

(8 marks)

5. Describe any **five** preventive measures in disease control on the farm.

(20 marks)

6. (a) Explain the term 'feeding standards'.

Statements that guide the farmer in feed formulation

(5 marks)

(b) Describe any **five** factors necessary for an animal to meet its nutritional requirement from a feedstuff.

(15 marks)

*Physiological - Prog
 size/age of animal
 Type/level of animal
 level of prod.*

*Isolation
 Quarantine
 Vaccination
 Good sanitation & hygiene
 Proper feeding*



7. (a) Figure 1 shows the stage of growth of established pasture to be grazed on site.

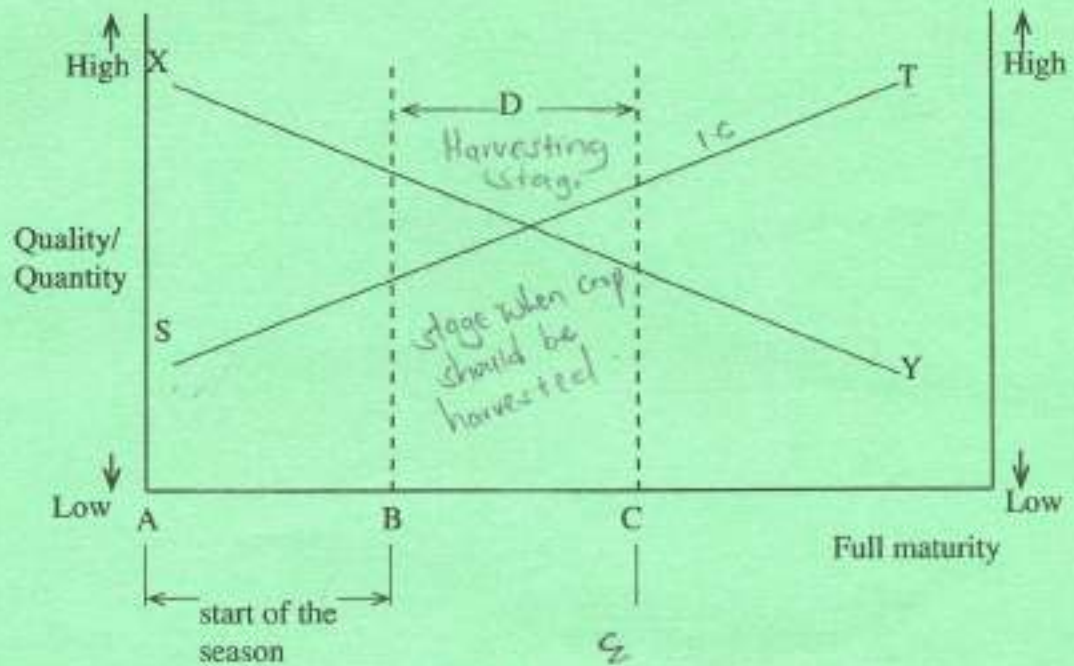


Figure 1

Identify the curves:

- (i) ST;
- (ii) XY.

(b) Name stage D.

stage when crop should be harvested

(c) Explain the relationship between quality/ quantity of pasture and age.

(d) (i) State any five causes of waste on the established pasture.

(ii) Give any five ways of preventing pasture waste.

*Silage making
Hay making
Standing forage*

8. Discuss the observable animal attributes that a stockman should look for to ascertain the health status of farm animals.

- Urination - colour
- Behaviour - Dullness
- Defecation - consistency
- Respiration rate - respiratory distress
- Pulse rate - range
- Skin - range
- ~~Temperature~~ - loss of appetite
- ~~Temperature~~ - loss of appetite
- ~~Temperature~~ - loss of appetite

Limp - Black quarks

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