



**PART A**

Answer all questions. For question 1 circle the letter corresponding to the best answer. For questions 2 – 5 write all answers in the spaces provided. You are advised not to spend more than 30 minutes on this part

- 1. (a) Which of the following is an advantage of row planting?
  - A: it is faster than broadcasting
  - B: it is ideal for small seeded crops
  - C: It is easy to regulate the plant population
  - D: it provides a good soil surface cover quickly
  
- (b) Forage diet feeding is not recommended for newly born calves due to:
  - A: their need for proteins rather than carbohydrates
  - B: absence of teeth until they are two months old
  - C: absence of rumen in their digestive system
  - D: their undeveloped rumen which lacks the necessary micro-organisms.
  
- (c) The following are variable in-puts, except
  - A: fertilisers
  - B: feeds
  - C: land
  - D: labour
  
- (d) The electrolyte in the battery is
  - A: Nitric acid
  - B: concentrated hydrochloric
  - C: dilute hydrochloric acid
  - D: dilute sulphuric acid

2. State the function of the following components in the transmission system

- (a) Gear box
  - (i) .....
  - .....
  - (ii) .....
  - .....
  
- (b) Differential
  - (i) .....
  - .....
  - (ii) .....
  - .....

3. (a) List three factors that affect the price of a commodity (3 marks)

- (i) .....
- .....
- (ii) .....
- .....

(iii) .....  
.....

(b) Mention three functions of farming organisations (3 marks)

(i).....  
.....

(ii).....  
.....

(iv) .....  
.....

4. (a) Give three advantages of using herbicides in the control of weeds (3 marks)

(i) .....  
.....

(ii) .....  
.....

(iii) .....  
.....

(b) State two characteristics of weeds that make them to be more successful

(i) .....  
.....

(ii) .....  
.....

5. (a) State three signs of ill-health in cattle (3 marks)

(i) .....  
.....

(ii) .....  
.....

(iii) .....  
.....

(b) List two methods of disease control in livestock without the use of drugs

(2 marks)

(i).....

(ii) .....

**PART B:**

Answer four questions in this part, including at least one question from each section. Answers should be clearly written on the answer sheets provided.

**SECTION I:  
MECHANISATION AND FARM MANAGEMENT**

6. (a) Farm buildings are important structures on a farm. Discuss the factors to be considered when putting up a building for storage on a farm.  
(b) What are the advantages of having a good storage facility for crop produce on a farm?
7. (a) Giving examples in each case, identify the uncertainties farmers face in production and marketing of their produce  
(b) Explain the measures you would advise a farmer to take in order to guard against risks and uncertainties
8. (a) Describe how an electric spark is produced in a petrol engine.  
(b) How best would a farmer take care of his tractor battery?

**SECTION II  
CROP PRODUCTION**

9. (a) Describe how diseases are spread in the field of growing crops  
(b) Explain the cultural practices, which could be used by farmers to control plant pests and diseases
10. (a) How can a natural pasture be improved?  
(b) State the advantages and disadvantages of rotational grazing
11. Describe the operations involved from the time of establishing a nursery bed up to transplanting of seedlings to the field.

**SECTION III  
ANIMAL PRODUCTION**

12. (a) With the aid of illustrations, show how food is digested in a ruminant animal.  
(b) Outline the differences between a ruminant and non-ruminant with respect to their digestive systems.
13. (a) Describe the life cycle of a two host tick  
(b) Give reasons why ticks are a problem to livestock farmers

14. (a) What is milk letdown?  
(b) Describe the process of milk letdown in a lactating cow.  
(c) Outline the factors that can cause milk hold up.