

1. (a) (i) State six ways in which animal production is important. [6 marks]
(ii) Differentiate between *rangeland* and *artificial pasture*. [4 marks]
- (b) (i) Define *lactation* as used in animal production. [2 marks]
(ii) Mention two hormones associated with milk letdown in livestock. [2 marks]
- (c) (i) Name two sources of protein concentrate for poultry production. [2 marks]
(ii) Mention four nutritional diseases in cattle. [4 marks]
2. (a) Discuss the Newcastle disease under the following headings:
(i) causal organism;
(ii) mode of transmission;
(iii) two symptoms;
(iv) two control measures. [6 marks]
- (b) Mention six ways of controlling parasites in animal production. [6 marks]
- (c) Explain each of the following terms as used in animal production:
(i) culling;
(ii) quarantine. [6 marks]
- (d) State two factors to consider when formulating diet for farm animals. [2 marks]
3. (a) What is meant by the term *artificial insemination*? [3 marks]
- (b) Copy and complete the table below showing the crossing between two parents of N'dama cattle with genotypes $RRDd \times RrDd$.
- | | | | | |
|----|----|------|------|----|
| | RD | Rd | RD | Rd |
| RD | | | | |
| Rd | | RRdd | RRDd | |
| rD | | RrDd | RrDD | |
| rd | | | | |
- [6 marks]
- (c) Determine the ratio of the genotype obtained from the crossing in (b). [2 marks]
- (d) Enumerate three equipment used in bee keeping. [3 marks]
- (e) Mention three ways of reducing worm infestation in farm animals. [3 marks]

- (c) Distinguish between a gene and a genotype. [4 marks]
- (d) Mention four disadvantages of *introduction* as a practice used in animal improvement programmes. [4 marks]

5. (a) State four benefits of providing water to grazing livestock. [4 marks]
- (b) List four factors to be considered when buying gilts for rearing. [4 marks]
- (c) State two ways by which a farmer could differentiate male and female grasscutters. [2 marks]
- (d) State five characteristics of a suitable sheep pen. [5 marks]
- (e) Mention five advantages of the battery cage system of rearing chicken. [5 marks]

6. (a) Draw and label an egg of a hen. [6 marks]
- (b) Give four examples of equipment used in a brooder house. [4 marks]
- (c) Copy and complete the table of vaccination for poultry below.

<i>Age of bird at vaccination</i>	<i>Disease/Type of vaccine</i>	<i>Route of administration</i>
Day old	(iii).....	Subcutaneous
1 - 7days	(iv).....	Intraocular/Eye
10 - 12days	(v).....	Water
(i).....	Lasota New Castle disease	(vii).....
(ii).....	Fowl pox vaccine	(viii).....
6th week	(vi).....	Intramuscular or water

- [8 marks]
- (d) Mention two artificial methods of semen collection. [2 marks]

END OF ESSAY TEST