higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE (VOCATIONAL)

ANIMAL PRODUCTION
NQF LEVEL 3

(1011023)

26 February 2018 (X-Paper)
09:00–12:00

This question paper consists of 8 pages.

NCV

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TIME: 3 HOURS
MARKS: 150

INSTRUCTIONS AND INFORMATION

1. Answer ALL the questions.
2. Read ALL the questions carefully.
3. Number the answers according to the numbering system used in this question paper.
4. Write neatly and legibly.

NC(V)

SECTION A

QUESTION 1

1.1 Indicate whether the following statements are TRUE or FALSE. Choose the answer and write only 'true' or 'false' next to the question number (1.1.1–1.1.10) in the ANSWER BOOK.

1.1.1 It takes six molecules of carbon dioxide and six molecules of oxygen to make one molecule of glucose.

1.1.2 Free and encapsulated nerve endings are in the dermis.

1.1.3 The retina contains muscles that control the size of the pupil.

1.1.4 The cerebellum receives impulses from the semicircular canals in the ear.

1.1.5 Glucose is the main source of protein in the body.

1.1.6 Dorper sheep are a crossbreed between the Dorset horn and the black-headed Persian.

1.1.7 Sulphur is included in licks mainly to combat prussic acid poisoning.

1.1.8 The cerebrum is the thinking part of the brain.

1.1.9 Insulin lowers blood sugar by stimulating body cells to take up glucose from the blood.

1.1.10 Parasites are animals that live in or on other animals and get their food from the host animal.

(10 × 1) (10)

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1.2 Give ONE term for each of the following descriptions by choosing a term from the list below. Write only the term next to the question number (1.2.1–1.2.10) in the ANSWER BOOK.

cellular respiration; puberty; conjunctiva; glomerule; reabsorption; prostate gland; placenta; progesterone; homeostasis; ovulation; digestion

1.2.1 Development period during which young animals develop adult sexual characteristics

1.2.2 Chemical process in which simple food molecules are broken down in the cell of each part of the body to release energy

1.2.3 Thin transparent layer that covers and protects the front part of the eye

1.2.4 Process whereby useful substances are moved back into the blood

1.2.5 State in which all important conditions inside the body are stable and in balance

1.2.6 Dense network of small blood vessels located in the cup shape of the Bowman's capsule

1.2.7 Hormone that stimulates growth of the placenta and maintains pregnancy

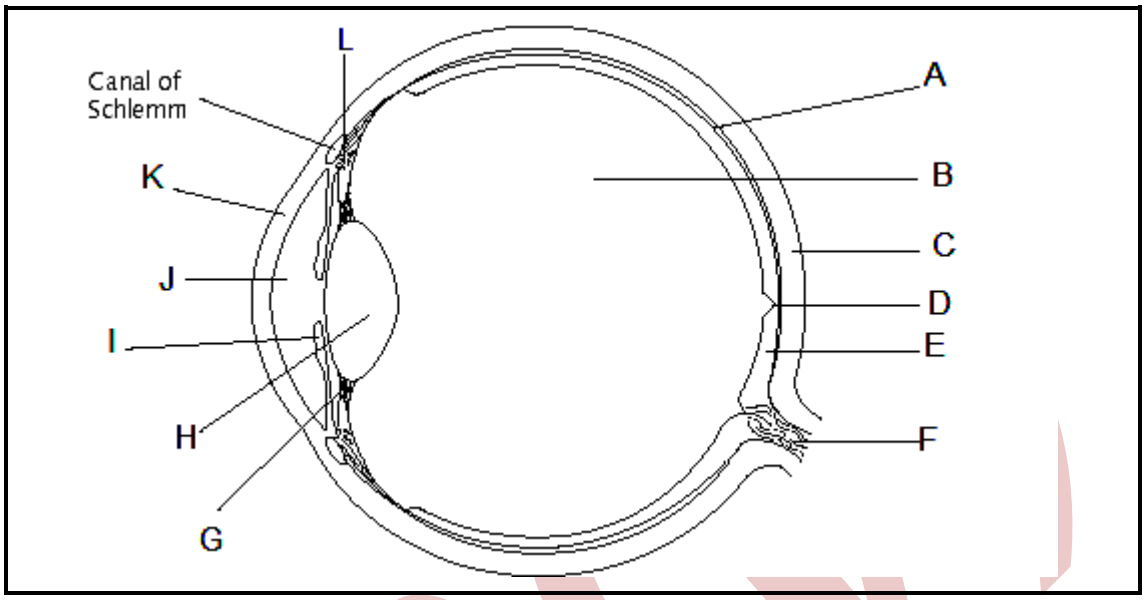
1.2.8 Release of eggs from the ovary

1.2.9 Disc-shaped mass of finger-like extensions that contains many blood vessels

1.2.10 Secretes a milky substance that helps to lubricate and clean the urethra before ejaculation

(10 × 1) (10)

1.3 Label the parts of an animal eye depicted in the diagram below. Write only the name next to the letter (A–L) in the ANSWER BOOK.



ANIMAL EYE (12)
[32]

QUESTION 2

2.1 Explain the importance of bird's tail feathers? (2)

2.2 Outline the economic uses of feathers in the Agricultural Industry. (3)

2.3 Explain how glucose level in the blood of an animal is regulated by the pancreas. (8)

2.4 Criticize inbreeding as a method used to produce purebred animals. (5)
[18]

TOTAL SECTION A: 50

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SECTION B

QUESTION 3

3.1 Study the picture below and answer the questions.



[Source: *www.shutterstock.com*]

3.1.1 Name the type of breed. (1)

3.1.2 Which product does the breed named in QUESTION 3.1.1 produce? (1)

3.1.3 Justify how farming with the breed named in QUESTION 3.1.1 is an advantage to farmers? (3)

3.2 Recommend the traits that a farmer should consider when selecting rams for breeding purposes. (6)

3.3 Discuss the importance of rotational grazing to livestock farmers. (11)

3.4 Outline the types of licks that can supplement nutrients in animal rations. (3)
[25]

QUESTION 4

4.1 Outline the factors that should be considered to ensure that rams are properly fed. (3 × 2) (6)

4.2 Explain the steps that farmers should take to ensure that rams have a successful mating season? (3 × 2) (6)

4.3 Distinguish between the sweet veld and other veld types. (3 × 2) (6)

4.4 Explain *lambing percentage*. (2)

4.5 List FOUR types of external parasites that affect sheep. (4)

4.6 How can a farmer identify a sheep affected by mites? (1)
[25]

TOTAL SECTION B: 50

SECTION C

QUESTION 5

5.1 Justify why the Duroc is regarded as the best pig breed in South Africa. (5)

5.2 Outline the economic factors that must be taken into account when selecting breeding boars? (4)

5.3 Explain the factors that need to be considered when feeding lactating sows. (10)

5.4 Define 'dressing *percentage'.* (2)

5.5 Name FOUR bacterial diseases that affect pigs. (4)
[25]

NC(V)

QUESTION 6

6.1 Read the case study below and answer the questions.

> Swill feeding can increase profits of individual farmers, but farmers must be warned that it could also raise concerns about food safety and disease control. The overall cost to the industry of such an outbreak could outweigh the financial gain. This concern is understandable given the R190 billion cost of the foot-and-mouth outbreak.
>
> [Source: *Farmers Weekly*]

6.1.1 What is a *pigswill*? (2)

6.1.2 Criticise the use of kitchen waste as a source of pig feed? (4)

6.1.3 Outline the measures that should be taken to ensure that pigswill is harmless? (4)

6.2 Name FIVE internal parasites that affect pigs. (5)

6.3 Outline the factors that need to be considered when building a boar house to ensure that its temperatures are suitable for production. (7)

6.4 Give THREE symptoms of mange. (3)
[25]

TOTAL SECTION C: 50
GRAND TOTAL: 150

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