higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE (VOCATIONAL)

ANIMAL PRODUCTION
NQF LEVEL 2

(1011022)

15 November 2024 (Y-paper)
13:00–16:00

This question paper consists of 8 pages.

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DEPARTMENT OF HIGHER EDUCATION AND TRAINING
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE (VOCATIONAL)
ANIMAL PRODUCTION
NQF LEVEL 2
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. Start each section on a new page.
5. Use only a black or blue pen.
6. Write neatly and legibly.

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SECTION A

QUESTION 1

Various options are given as possible answers to the following questions. Choose the answer and write only the letter (A–D) next to the question number (1.1–1.10) in the ANSWER BOOK.

1.1 In living organisms, protein molecules are broken down into … for respiration.

A fatty acids
B glucose
C amino acids
D vitamins

1.2 The chemical responsible for making muscles feel stiff and sore after physical exercise is called …

A fermentation.
B digestion.
C uric acid.
D lactic acid.

1.3 The epidermis consists of cells which are functionally dead and composed of a protein namely …

A the malpighian layer.
B keratin.
C melanin.
D basal.

1.4 The external parasites in poultry that are tiny and wingless and feed on blood from the hosts:

A Houses
B Tsetse flies
C Mites
D Mosquitoes

1.5 A breeding behaviour essential in male goats as it allows bucks to establish dominance and mate with the does, is called …

A ejaculation.
B bulling.
C bluffing.
D rutting.

1.6 Mohair is produced by the … goat.

A karakul
B angora
C merino
D Corriedale

1.7 A/An … is an animal that feeds on grass.

A browser
B grazer
C omnivore
D carnivore

1.8 A common feeding problem that occurs when gases build up in the rumen causing discomfort, pain and potentially life-threatening complications, is called …

A acidosis.
B pulp kidney.
C bloat.
D convulsions.

1.9 A healthcare method that applies to dairy goats to reduce the risk of contamination and ensuring clean and better milk quality:

A Shearing
B Vaccination
C Stripping
D Trimming

1.10 The process whereby the fertilised egg attaches to the walls of the uterus, is known as …

A implantation.
B pregnancy.
C fertilisation.
D estrus.

(10 × 1) **[10]**

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QUESTION 2

Indicate whether the following statements are TRUE or FALSE by writing only 'True' or 'False' next to the question number (2.1–2.10) in the ANSWER BOOK.

2.1 Poultry affected by fowl ticks can be treated with malathion, carbaryl or coumaphos.

2.2 Bedbugs cause chickens to itch so much that they tend to pull out their feathers.

2.3 Poultry houses should not be cleaned when the birds are removed for processing in the abattoir or sold as live birds.

2.4 To get rid of dead birds, farmers must dig a very deep pit to bury the dead birds to prevent wild birds and dogs from eating the diseased carcasses.

2.5 Curled-toe paralysis is a nutritional disease caused by the lack of vitamin B12.

2.6 Skilder goats are kept for meat and has good confirmation, fast growth and fertility, and white short hair and red markings on the head and neck.

2.7 The South African boer goat is a good milk-producing breed.

2.8 The Alpine is a popular dairy breed that produces large quantities of milk – up to three litres per day.

2.9 Kidding is the process by which a newly born kid is taken away from its mother and given milk and solid food to eat.

2.10 Goats and sheep are also known as small ruminants or small stock.

(10 × 1) **[10]**

QUESTION 3

Choose a description from COLUMN B that matches an item in COLUMN A. Write only the letter (A–O) next to the question number (3.1–3.10) in the ANSWER BOOK.

COLUMN A		COLUMN B	
3.1	Monogastric	A	Is a hormone produced by the pituitary gland, responsible for the growth and maturation of the follicles in the ovaries leading to egg production
3.2	Scrotum	B	Symptoms include foaming in the mouth, constant chewing movements, fever and difficult breathing
3.3	Ovaries	C	Feeds that are high in energy and nutrients and low in fibre content
3.4	Follicle-stimulating	D	Animals with a single stomach chamber
3.5	Hormone	E	The practice of restraining a goat to a fixed point using a rope or chain to limit its movement
3.6	Concentrates	F	A sac-like structure located under the penis, carrying the testicles
3.7	Ear tags	G	Used for identification in animals
3.8	Heartwater	H	Two small oval-shaped organs that are attached on both sides of the uterus
3.9	Drenching	I	The process of giving liquid medication or supplements to a goat
3.10	Brucella melitensis	J	Injecting an animal against diseases
		K	A bacterium that causes abortion in goats
		L	A disease that causes the accumulation of water around the heart of an animal
		M	Inflammation of the mammary gland of goats
		N	Produces sperms in male animals
		O	Animals with four stomach chambers

(10 × 1) **[10]**

QUESTION 4

4.1 Identify SIX factors that are required for the growth and development of chicken bones. (6 × 1) (6)

4.2 State the main functions of the systematic circulation in the body of an animal. (8 × 1) (8)

4.3 Name the THREE types of blood cells and their functions. (3 × 2) (6)

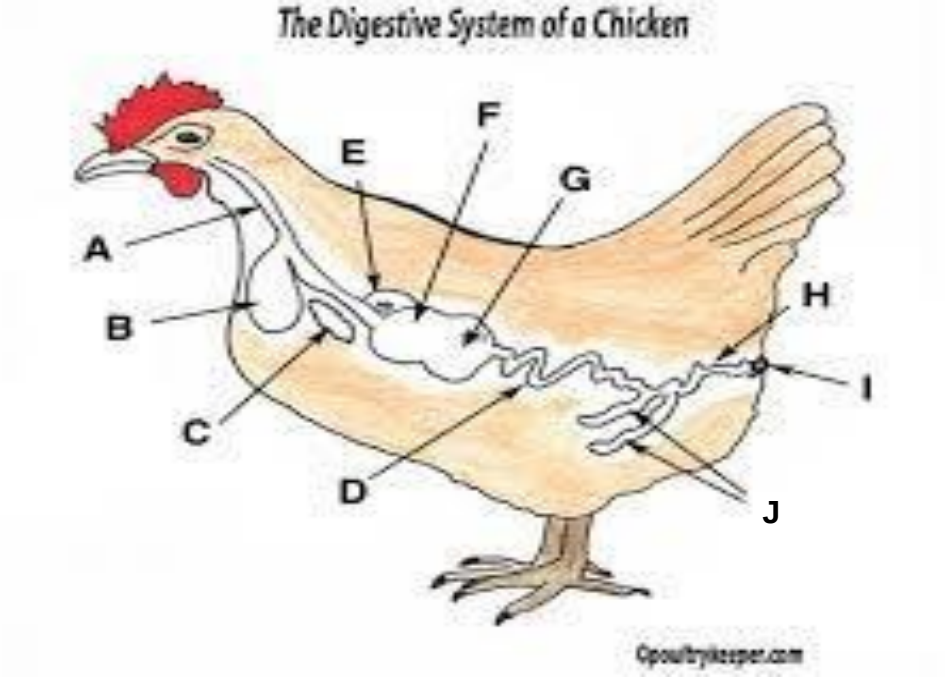
[20]

TOTAL SECTION A: 50

SECTION B

QUESTION 5

5.1 Study the picture below and answer the questions.



5.1.1 Label the parts marked A–J. (10)

5.1.2 State the TWO functions of the part labelled B. (2 × 2) (4)

5.1.3 State the TWO functions of the part labelled G. (2 × 2) (4)

5.1.4 State the TWO functions of the part labelled D. (2 × 2) (4)

5.2 Chickens (Cockerels) do not possess a penis, but mating and fertilisation can still occur.

Explain the anatomical and behavioural adaptations that enable successful mating and fertilisation in chickens. (4 × 2) (8)
[30]



QUESTION 6

6.1 Name FOUR poultry breeds meant for brown egg production. (4 × 1) (4)

6.2 State THREE factors that can affect the quality of day-old chicks. (3 × 2) (6)

6.3 Give FOUR benefits of keeping poultry under a battery cage system. (4 × 1) (4)

6.4 Clean water plays a crucial role in poultry production.

Discuss the importance of clean water in poultry production. (6 × 1) (6)
[20]

TOTAL SECTION B: 50

SECTION C



QUESTION 7

7.1 List FOUR common dairy-goat breeds. (4 × 1) (4)

7.2 Why do most goat farmers prefer to keep the Alpine dairy breed? (8 × 1) (8)

7.3 Foot rot, also known as hoof rot or contagious foot rot, is a common disease that affects goats.

Explain how a farmer can control and prevent foot rot among their animals. (8 × 1) (8)

7.4 Discuss the hygienic practices required to prevent diseases in goats and humans on the farm. (10)
[30]



QUESTION 8

8.1 Differentiate between the following terms as they are used in goat farming:

8.1.1 *Subsistence farming* and *extensive farming* (4)

8.1.2 *Intensive farming* and *semi-intensive farming* (4)

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8.2 Explain the meaning of the following terms:

8.2.1 Biosecurity

8.2.2 Vaccination

8.2.3 Bloat

(3 × 2) (6)

8.3 Explain the appropriate ways of handling dairy goats during milking. (6 × 1) (6)

[20]

TOTAL SECTION C: 50
GRAND TOTAL: 150

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