higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE (VOCATIONAL)

ANIMAL PRODUCTION
NQF LEVEL 3

(1011023)

2 December 2024 (X-paper)
09:00–12:00

This question paper consists of 6 pages.

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DEPARTMENT OF HIGHER EDUCATION AND TRAINING
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE (VOCATIONAL)
ANIMAL PRODUCTION
NQF LEVEL 3
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

1.1 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 (1.1.1–1.1.10) in the ANSWER BOOK.

1.1.1 A group of animal cells are called a/an …

A organ.
B cell.
C tissue.
D neuron.

1.1.2 During aerobic respiration, glucose is broken in the presence of oxygen to produce …

A carbon dioxide and water.
B carbon dioxide, water and energy.
C water, energy and sunlight.
D glucose, oxygen and energy.

1.1.3 Which ONE of the following is part of the avian skin?

A Wool
B Fur
C Dermis
D Hair

1.1.4 The … system consists of the nerves that link the body to the central nervous system.

A peripheral
B respiratory
C reproductive
D excretory

1.1.5 The waterproof protein that makes up the epidermis, nails, hair and claws is called the …

A hypodermis.
B lanolin.
C keratin.
D follicles.

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1.1.6 Which ONE of the following is part of a mammalian ear?

A Retina
B Cornea
C Dermis
D Cochlea

1.1.7 The … is part of the endocrine gland system.

A thyroid
B kidney
C pinna
D axon

1.1.8 Which ONE of the following is a wool-bearing sheep breed?

A Corriedale
B Letelle
C Merino
D Hampshire

1.1.9 The… is a white wool sheep with the white face and pink nostrils.

A Dorper
B Round-Headed Afrikaner
C Dorset Horn
D Black-headed Persian

1.1.10 Which ONE of the following is an external parasite?

A Noseworm
B Fluke
C Milkworm
D Roundworm

(10 × 1) (10)

1.2 Differentiate between the following:

1.2.1 Sensory system and nervous system

1.2.2 Epidermis layer and dermis layer

1.2.3 Urinary system and genital system

1.2.4 Endocrine gland system and homeostatic control mechanism

1.2.5 Internal parasites and external parasites

(5 × 4) (20)
[30]

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QUESTION 2

2.1 Distinguish between the basic structure of *motor neurons* and *sensory neurons*. (10)

2.2 Outline the importance of nephrons in the kidneys. (6)

2.3 Differentiate between *Bowman's capsule* and the *glomeruli*. (4)
[20]

TOTAL SECTION A: 50

SECTION B

QUESTION 3

3.1 Give advice to farmers on the importance crossbreeding in the development of mutton breeds. (8)

3.2 Outline the characteristics that make the Dorper suited to the environmental conditions of South Africa. (5)

3.3 List ONE benefit of early weaning in sheep. (1)

3.4 Recommend supplementary feeding as an important aspect in sheep farming. (11)
[25]

QUESTION 4

4.1 Explain THREE control measures that can be used to prevent the spread of internal parasites in extensive sheep farming. (14)

4.2 Outline EIGHT principles that should be considered when demarcating a farm for good management and utilisation of veld. (8)

4.3 Outline THREE factors that must be considered when developing the veld management programme. (3)
[25]

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SECTION C

QUESTION 5

5.1	List the EIGHT qualities of the South African landrace.	(6)
5.2	Recommend the indigenous pot-bellied pig as a good choice for subsistence farmers.	(4)
5.3	Outline FIVE factors that must be considered when feeding pigs during the lactating stage.	(10)
5.4	Name THREE products that come from pigs.	(3)
5.5	Explain *extensive farming*.	(2)

[25]

QUESTION 6

6.1	Define the term *heritability.*	(2)
6.2	Identify SEVEN characteristics that should be considered when selecting pigs for breeding.	(7)
6.3	Outline FIVE aspects to consider when constructing a boar house.	(9)
6.4	Recommend inbreeding to farmers who are interested in starting a pig farming enterprise.	(4)
6.5	Name THREE diseases that affect pigs.	(3)

[25]

TOTAL SECTION C: 50
GRAND TOTAL: 150

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