higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE (VOCATIONAL)

ANIMAL PRODUCTION
NQF LEVEL 3

(1011023)

7 November 2018 (X-Paper)
09:00–12:00

This question paper consists of 8 pages.

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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.

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SECTION A

QUESTION 1

1.1 Various options are provided as possible answers to the following questions. Choose the answer and write only the letter (A–D) next to the number (1.1.1–1.1.10) in the ANSWER BOOK.

1.1.1 Which ONE of the following is needed for aerobic respiration to take place?

A Carbon dioxide
B Oxygen
C Energy
D Water

1.1.2 Which of the following parts contain blood vessels?

A Cornified layer
B Dermis
C Granular layer
D Malpighian layer

1.1.3 The … controls the amount of light entering the eye.

A lens
B retina
C iris
D pupil

1.1.4 The sense of balance in mammals is made possible in the …

A utriculus.
B round window.
C oval window.
D Eustachian tube.

1.1.5 An interneuron conducts an impulse from …

A a receptor to the spinal cord.
B the brain to the muscles/gland.
C the muscles/gland to the brain.
D the sensory neuron to the motor neuron.

1.1.6 Forms part of the forebrain:

A Cerebellum
B Cerebrum
C Medulla oblongata
D Midbrain

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1.1.7 Urine is transported to the outside of the body by …

A proximal convoluted tubule.
B loop of Henle.
C urethra.
D ureter.

1.1.8 Which ONE of the following reproductive organs in mammals is situated outside the body of an animal?

A Testes
B Epididymis
C Vas deferens
D Ovaries

1.1.9 During the expulsion of the afterbirth ONE of the following occurs:

A Muscular contractions force the foetus out of the mother's body
B The placenta and the umbilical cord are moved out
C The mother usually lies on her side
D The cervix widens to form a birth canal with the uterus

1.1.10 Which ONE of the following would happen if the thyroid gland secretes little thyroxine?

A Increased metabolic rate
B Protruding eyes
C Loss of weight
D Weight gain

(10 × 1) (10)

NECD

1.2 Choose a description from COLUMN B that matches an item/word in COLUMN A. Write only the letter (A–O) next to the question number (1.2.1–1.2.10) in the ANSWER BOOK.

COLUMN A		COLUMN B	
1.2.1	Pinna	A	maintenance of constant internal state
1.2.2	Motor neurons	B	raises glucose level
1.2.3	Re-absorption	C	ends when the young one is born
1.2.4	Ovaries	D	useful substances are taken back to the blood
1.2.5	Respiration	E	finds the direction of sound
1.2.6	Pregnancy	F	found at the base of the brain
1.2.7	Prolactin	G	found in pigs only
1.2.8	Homeostasis	H	primary reproductive organs in females
1.2.9	Osmo-regulation	I	regulates the size of the image
1.2.10	Glucagons	J	send nerve impulses from the central nervous system
		K	energy is released from organic compounds
		L	senses sound vibrations
		M	controls water and salt in the body
		N	stimulates growth of mammary tissues
		O	responsible for growth

(10 × 1) (10)

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1.3 Indicate whether the following statements are TRUE or FALSE. Choose the answer and write only 'true' or 'false' next to question number (1.3.1–1.3.5) in the ANSWER BOOK.

1.3.1 A pig has sweat glands.

1.3.2 The concept of lactic acid fermentation is applied in the formation of silage.

1.3.3 The auditory nerve leaves the eye at the blind spot.

1.3.4 The uterus has a lot of blood vessels.

1.3.5 Adrenalin controls all phases of parturition.

(5 × 1) (5)
[25]

QUESTION 2

2.1 Explain the role of anaerobic respiration in sheep's digestion. (7)

2.2 Name structures found in the dermis of a mammalian skin. (7)

2.3 Differentiate between *aqueous humour* and *vitreous humour*. (4)

2.4 The central nervous system is made up of the brain and the spinal cord.

2.4.1 Name the FOUR structures that form the forebrain. (4)

2.4.2 Name THREE examples of natural reflex action that may occur in farm animals. (3)
[25]

TOTAL SECTION A: 50

SECTION B

QUESTION 3

3.1 Letele is one of the popular breed among sheep farmers in South Africa.

3.1.1 State the purpose of the farmer who farms with this breed. (2)

3.1.2 State the characteristics of the Letele breed. (7)

3.2 Licks are meant to supplement pastures.

3.2.1 Explain why licks should supplement pastures and not replace them. (3)

3.2.2 List FOUR main groups of licks. (4)

3.3 Explain in which way vegetation determines the carrying capacity of a camp. (9)
[25]

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QUESTION 4

4.1 Explain wool quality. (4)

4.2 Study the grading of lamb carcasses below. Write the answers next to the number (4.2.1–4.2.4) in THE ANSWER BOOK.

GRADE	COLOUR
4.2.1	Purple
Grade 1	4.2.2
Grade 2	4.2.3
Grade 3	4.2.4

(4)

4.3 Describe how pelt is packed for sale. (5)

4.4 Name THREE common external parasites in sheep. (3)

4.5 Tail docking is one of the practices on sheep on the farm.

4.5.1 Name the instrument used for tail docking. (1)

4.5.2 Explain the importance of tail docking. (5)

4.6 State THREE characteristics of ewes that are suitable for breeding purposes. (3)

[25]

TOTAL SECTION B: 50

SECTION C

QUESTION 5

5.1 Compare the indigenous pot-bellied and the large white pig breeds. (10)

5.2 Differentiate between intensive and extensive methods of pig feeding. (4)

5.3 List FOUR types of feed that is suitable for piglets before weaning. (4)

5.4 5.4.1 State the condition of a porker when it is ready for the market. (4)

5.4.2 Name the feed conditions to ensure the porker is in a good condition for the market. (3)

[25]

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QUESTION 6

6.1 Explain the selection of a boar for breeding. (7)

6.2 Leptospirosis is one of the economically destructive diseases on a pig farm.

6.2.1 Name the cause of this disease. (1)

6.2.2 Write down the symptoms of this disease. (3)

6.2.3 Explain how this disease can be prevented. (4)

6.3 Name THREE external parasites common in pigs. (3)

6.4 Explain how a pig farmer could control internal parasites. (7)
[25]

TOTAL SECTION C: 50
GRAND TOTAL: 150

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