higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE (VOCATIONAL)

ANIMAL PRODUCTION
NQF LEVEL 2

(1011022)

27 February 2020 (Y-paper)
13:00–16:00

This question paper consists of 8 pages.

071Q1S2027

Copyright reserved

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 blue or a black pen.
6. Write neatly and legibly.

Copyright reserved

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 Which ONE is not an example of a commercial-type broiler chicken breed in South Africa?

A Ross
B Cobb
C Ovambo
D Stabro

1.2 … helps blood to move between the heart and the body.

A Coronary circulation
B Systematic circulation
C Cardiovascular system
D Pulmonary circulation

1.3 Which cells are responsible for blood clotting, to stop blood loss from a body?

A Lymphocytes
B Red-blood cells
C Phagocytes
D Platelets

1.4 … is not a nutrition term used in agricultural industry.

A Anabolism
B Catabolism
C Metabolism
D Cellulose

1.5 The … is responsible for breaking down and absorbing nutrients in poultry.

A beak
B vent
C oesophagus
D small intestine

1.6 The reproductive system in chickens consists of the … and the oviduct.

A ovary
B crop
C oesophagus
D vent

Copyright reserved

1.7 Which of the following is an example of an indigenous chicken breed?

A Amberlink
B Shaver Star Cross 288
C Naked-neck
D Ross

1.8 The … is located just below the entrance of the oesophagus and has a honeycomb shape.

A omasum
B reticulum
C abomasum
D caecum

1.9 Which of the following is not a part of the chicken breathing system?

A Nasal cavities
B Air sacs
C Gall bladder
D Bronchi

1.10 The main function of the … is to produce gastric juice containing acid and enzymes.

A proventriculus
B gizzard
C liver
D beak

(10 × 1) **[10]**

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 All vertebrates living on land breathe air into and out of their lungs.

2.2 The pulmonary circulatory system transports blood that has been enriched with oxygen from the heart to the body

2.3 The heart consists of four chambers, namely two atria and two ventricles

2.4 Various indigenous breeds are kept as free-range chickens in South Africa.

2.5 Broilers grow at a fast rate, which makes them vulnerable to diseases.

2.6 Boer goat can produce 4,8 kilograms of mohair a year.

Copyright reserved

2.7 Young male goats should be castrated by the time they are six weeks of age, regardless of the method used.

2.8 Goats are ruminants, so called because they chew the cud.

2.9 Mid-carpal and mid-tarsal joints are gliding joints.

2.10 A goat may get bad germs entering the soft part of its foot.

(10 × 1) **[10]**

QUESTION 3

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

COLUMN A		COLUMN B	
3.1	Goat breed that produces long hair which can shorn and sold	A	orf
3.2	Transportation of blood enriched with oxygen from the heart to the rest of the body	B	omasum
3.3	Collection of organs that circulate blood all over the body	C	synovial
3.4	Compartment consisting of many folds that grinds up feed and removes water from the feed	D	gizzard
3.5	Disease causing infection of the skin and mucus membranes of goats	E	absorption
3.6	Process whereby food goes through walls of small intestine into the blood stream	F	angora
3.7	Chicken organ responsible for grinding food and mixing it with gastric juices	G	boer goat
3.8	Large bag at end of large intestine containing millions of microbes	H	rumen
3.9	Joints that have cavities between bones responsible for lubricating bones	I	systematic circulation
3.10	Largest of four stomach compartments	J	caecum
		K	cardiovascular system
		L	gliding

(10 × 1) **[10]**

Copyright reserved

QUESTION 4

4.1 Distinguish between the characteristics of light and heavy chicken breeds. (8)

4.2 Give the terminology for each of the following statements:

4.2.1 Wanting to sit on eggs to hatch them

4.2.2 Fly up into a tree to sleep

4.2.3 Dying-off of chickens

4.2.4 All the chickens sold or sent to abattoir at the same time

(4 × 2) (8)

4.3 Differentiate between *crop* and *proventriculus* as part of the digestive system of chickens. (4)

[20]

TOTAL SECTION A: 50

SECTION B

QUESTION 5

5.1 Briefly state the difference between *broiler* and *dual-purpose* breeds of chicken. (2)

5.2 Outline THREE factors that affect the quality of a day-old chicken. (3 × 2) (6)

5.3 Study the extract below and answer the questions.

> Feed is 60% of the total cost of producing a broiler. Feed costs are forecast to remain high for the next 1–2 years. Efficient feed utilisation is the most influential input in the management of live production cost.
>
> [Adapted from: *https://cobbsa.co.za*]

5.3.1 Explain *efficient feed utilisation*. (2)

5.3.2 State FIVE strategies used to minimise cost and wastage of feed when producing broilers. (5 × 2) (10)

5.4 State FIVE factors that must be considered when constructing a chicken house. (5)

[25]

QUESTION 6

6.1 Farmers should be able to identify, control and prevent diseases and parasites in poultry stock and this can only be possible if they have a good understanding of the different diseases.

6.1.1 List FOUR external parasites affecting poultry as well as control measures that can be applied for each parasite. (4 × 2) (8)

6.1.2 Suggest THREE measures that can be used to control internal parasites. (3 × 2) (6)

6.1.3 Differentiate between *host* and *parasite*. (4)

6.2 Outline THREE strategies that can be used to control pests and rodents in poultry houses. (3 × 2) (6)

6.3 Name any preventative measure to minimise the spread of Newcastle disease. (1)

[25]

TOTAL SECTION B: 50

SECTION C

QUESTION 7

7.1 Study the extract below and answer the questions.

> After having achieved good success with the Boer goat breed, we took the challenge of breeding a new variation of colour and the Kalahari Red was developed. Interest in the Kalahari Red is widespread and has come from far afield as Australia, Brazil and the USA.

[Adapted from: *https://kalaharireds.net*]

7.1.1 Describe the external characteristics of the Kalahari goat breed. (4)

7.1.2 Give FIVE important advantages that caused the Kalahari red goat breed to gain interest in other countries such as Australia, Brazil and USA. (5)

7.2 Name FIVE dairy-producing goat breeds well-suited to South African environmental conditions. (5)

7.3 State the FIVE veld management systems that must be kept in mind to ensure good goat production. (5)

7.4 Define each of the following terms:

7.4.1 Lactation

7.4.2 Gestation

7.4.3 Flushing

(3 × 2) (6)
[25]

QUESTION 8

8.1 State the general principles of handling goats. (5)

8.2 Describe each of the following systems of keeping goats:

8.2.1 Tethering

8.2.2 Extensive goat keeping

8.2.3 Intensive goat keeping

(3 × 2) (6)

8.3 Briefly explain *bloat* as digestive disorder that affects goats. (8)

8.4 Name TWO symptoms each of goats suffering from the following diseases:

8.4.1 Mastitis

8.4.2 Blue tongue

8.4.3 Heart water

(3 × 2) (6)
[25]

TOTAL SECTION C: 50
GRAND TOTAL: 150

Copyright reserved