higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

MARKING GUIDELINE

NATIONAL CERTIFICATE (VOCATIONAL)

ANIMAL PRODUCTION
NQF LEVEL 2

19 February 2025

This marking guideline consists of 7 pages.

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SECTION A

QUESTION 1

1.1 A
1.2 C
1.3 C
1.4 B
1.5 D
1.6 D
1.7 B
1.8 C
1.9 C
1.10 C

(10 × 1) **[10]**

QUESTION 2

2.1 False
2.2 True
2.3 False
2.4 False
2.5 True
2.6 True
2.7 True
2.8 False
2.9 False
2.10 True

(10 × 1) **[10]**

QUESTION 3

3.1 K
3.2 I
3.3 J
3.4 H
3.5 A
3.6 B
3.7 C
3.8 D
3.9 E
3.10 F

(10 × 1) **[10]**

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QUESTION 4

4.1 4.1.1 Coarse, indigestible and fibrous part of plant material like grass, hay, straw and other vegetables fibres that is low in nutrients and high in fibre and used as food for animals

4.1.2 Removal of testicles to sterilise and prevent reproduction

4.1.3 Organism that lives on or in another organism and feeds on the host's tissues and fluids often causing harm to the host in the process

4.1.4 Food is broken down into smaller pieces that can be absorbed into the bloodstream.

4.1.5 Chewing food slightly, swallowing it and later taking it back into the mouth/regurgitating for proper chewing

(5 × 2) (10)

4.2 4.2.1
- Acts as a passage for sperm from the seminiferous tubule
- Stores semen
- Where the semen matures (Any TWO)

4.2.2 Produce sperm cells and the male hormone testosterone

4.2.3 To move the sperm into the urethra during ejaculation/passage of sperms from the penis into the female during mating

4.2.4
- Produces the female reproductive cells or ova
- Secretes the hormones oestrogen and progesterone
- Forms the corpus luteum, which secretes the hormone progesterone (Any TWO)

4.2.5
- Produces mucus that helps sperm to reach the egg facilitating fertilisation
- Plays a vital role in maintaining pregnancy and supports foetal development
- Closes the uterus during pregnancy (Any TWO)

(5 × 2) (10)
[20]

TOTAL SECTION A: 50

SECTION B

QUESTION 5

5.1

ADVANTAGES CRUMBLE/GROWER	DISADVANTAGES CRUMBLE/GROWER
Does not stick to chick's beak	May be more costly to manufacture than mash diets
Not dusty	If not properly crumbled, may break up into a powdery mash form
Not much feed wasted through spillage	Special equipment required for crumbling feed
More palatable	Poultry farmers willing to mix rations at home may not be able to produce crumble

(4 + 4) (8)

5.2
- Age and stage of production (e.g. starter, growth, layer)
- Breed and genetic potential
- Nutritional requirements (e.g. proteins, energy, vitamins, minerals)
- Production goals (e.g. egg production, meat production, breeding)
- Availability of feed and quality
- Cost and economic considerations or feed cost of each ration
- Environmental and management factors (e.g. climate, housing, health)
- Size of the poultry enterprise
- Slaughter age
- Carcass quality required
- Storage facilities available for keeping the feed (Any 10 × 1) (10)

5.3
- Essential for normal growth and development, particularly in young animals
- Necessary for reproduction or fertility
- Promotes strong bones and teeth
- Protects cells from damage
- Influences gene expression or characteristics
- Helps in maintaining healthy skin and mucus membranes
- Supports the immune system
- Assists normal vision sharpness
- Protects against bacterial infections
- Necessary for bone development
- Helps the heart, lungs and other organs to work properly (Any 10 × 1) (10)

5.4 Strategy farmers use to prevent the spread of disease and infections in a herd or flock (2)

[30]

QUESTION 6

6.1
- Deep litter
- Battery cage
- Slatted floor
- Free range (Any 3 × 1) (3)

6.2
- Provides adequate space for birds to move around, stretch and engage in natural behaviours like foraging and scratching
- Gives access to natural light and fresh air
- Reduces stress in birds, as they are able to roam freely and in engage in natural behaviour
- More welfare-friendly, as they allow birds to express their natural behaviours
- Linked to better egg quality, as birds are able to forage and exercise, which can improve egg shell quality and yolk colour
- Leads to increased productivity, as birds are allowed to engage in natural behaviours
- Reduces the risk of disease, as birds are able to move away from infected birds
- Improves manure/waste management
- Birds' environment not controlled
- Not much money used to buy feeds and equipment to rear the chickens (10)

6.3
- Higher costs of constructing cages
- Labour intensive
- High feed costs
- Diseases and parasites spread easily
- Stressed birds
- Limited access to natural light and fresh air
- High costs of buying equipment (7)

[20]

QUESTION 7

7.1 7.1.1
- Stores food
- Keeps microorganisms
- Digests cellulose
- Fermentation
- Produces fatty acids
- Produces vitamins (Any 4 × 1) (4)

7.1.2
- Collects foreign objects swallowed together with food
- Pushes small food particles into the omasum
- Separates course particles from small particles (Any 2 × 1) (2)

7.1.3
- Produces hydrochloric acid
- Produces pepsin enzymes
- Produces gastric juice
- Digests proteins
- Produces renin enzyme (Any 4 × 1) (4)

7.2
- White body with brown head and ears
- Muscular build and sturdy frame
- Long horns
- High fertility
- Higher producers of milk
- Produces meat of high-quality, which is tender
- Hardy and adaptable breed
- Early maturity
- Rapid growth
- Good mothering ability
- Sound legs and feet (Any 5 × 1) (5)

7.3
- Digestion of cellulose
- Synthesis of amino acids
- Hydrolysis of proteins
- Synthesis of vitamins
- Production of fatty acid (Any 4 × 1) (4)

7.4
- Allows pastures to rejuvenate
- Increases forage productivity, weight gain and milk production of animals
- Grass available throughout the year
- Reduces erosion
- Controls parasites
- Higher stocking rate
- Reduces selective grazing in animals
- Effective land use (Any 6 × 1) (6)

7.5
- Availability of land and size
- Climate and weather
- Soil type and fertility
- Pasture species and quality
- Grazing strategy
- Stocking rate
- Breed and class of goats
- Supplementation
- Fencing and water availability
- Economic viability
- Sustainability (Any 5 × 1) (5)

[30]

QUESTION 8

8.1
- Lameness – limping/difficulty in walking
- Swelling –swollen and warm to the touch
- Pain – show signs of pain, such as flinching or withdrawing foot when touched
- Redness – affected area red and inflamed
- Pus – yellowish or greenish discharge (pus)
- Fever – may develop fever
- Loss of appetite
- Decreased milk production
- Foul odour (Any 6 × 1) (6)

8.2
- Biosecurity
- Practising good hygiene
- Vaccinating animals
- Proper feeding
- Availability of clean water
- Controlling vectors
- Using clean and sterilised equipment
- Quarantining/Isolating sick animals
- Keeping animals according to their ages
- Proper disposal of dead animals (10)

8.3
- Weight loss
- Diarrhoea or scours
- Anaemia
- Itching or rubbing
- Coughing or respiratory issues
- Bottle jaw
- Lethargy or depression
- Increased susceptibility to disease
- Potbellied (Any 4 × 1) (4)

[20]

TOTAL SECTION B: 100
GRAND TOTAL: 150

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