higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

MARKING GUIDELINE

NATIONAL CERTIFICATE (VOCATIONAL)

ANIMAL PRODUCTION
NQF LEVEL 3

XX February 2020

This marking guideline consists of 6 pages.

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SECTION A

QUESTION 1

1.1	1.1.1	C
	1.1.2	B
	1.1.3	C
	1.1.4	D
	1.1.5	B
	1.1.6	A
	1.1.7	B
	1.1.8	B
	1.1.9	A
	1.1.10	A

(10 × 1) (10)

1.2	1.2.1	D
	1.2.2	F
	1.2.3	A
	1.2.4	H
	1.2.5	G
	1.2.6	K
	1.2.7	I
	1.2.8	L
	1.2.9	C
	1.2.10	E

(10 × 1) (10)

1.3	1.3.1	True
	1.3.2	True
	1.3.3	True
	1.3.4	True
	1.3.5	True
	1.3.6	True
	1.3.7	False
	1.3.8	True
	1.3.9	False
	1.3.10	False

(10 × 1) (10)

1.4 The light rays from the object viewed by the animal pass through the cornea,✓ aqueous humour,✓ lens✓ and vitreous humour✓ to the retina.✓ The lens is responsible for focusing light onto the retina.✓ Light that enters the eye from the object that is being viewed is focused by the lens to form a sharp image on the retina.✓ Muscles in the ciliary body are attached to the lens.✓ When the eye views a distant object, the ciliary muscles are relaxed and the lens forms a flat disc shape.✓ When the eye views a nearby object, the ciliary muscles contract to pull the lens into a bulge or a round shape.✓ (10)

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1.5
- The liver controls glucose levels in the body✓ through hormones✓
- These hormones are insulin✓ and glucagon secreted by the islets of Langerhans in the pancreas✓
- Insulin lowers the amount of glucose in the blood,✓ and glucagon raises the level of glucose✓
- When the level of glucose rises in the blood,✓ insulin secretion increases and glucagon secretion decreases✓
- These changes bring about a drop in the level of glucose, taking it back to the correct level✓
- When the glucose level in the blood is too low, the secretion of insulin decreases✓ and the secretion of glucagon increases to correct the level✓

(Any 5 × 2) (10)
[50]

TOTAL SECTION A: 50

SECTION B

QUESTION 2

2.1 2.1.1 Black-headed Persian✓ and Dorset horn✓ (2)

2.1.2
- High fertility rates
- Good mothering ability
- Lambs grow fast
- High weaning weight
- Rams are sexually active (Good libido) (5)

2.2
- The sheep should be able to produce lambs that must be ready for slaughtering quickly and for marketing at the lowest possible cost.
- Lambs should be ready for slaughter as soon as they are weaned (2 × 2) (4)

2.3 Demarcation of camps helps to utilise the veld effectively. (2)

2.4
- Veld types with the same potential and grazing palatability should be fenced together.
- Smaller portions of less palatable veld should be fenced in with larger portions of more palatable veld.
- Vulnerable veld must be fenced together with less vulnerable veld.
- The camps must not be too large and should be determined by its carrying capacity.
- Different veld types must be fenced separately.
- Camps grouped together should be representative of veld types on the farm. (6 × 2) (12)

[25]

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QUESTION 3

3.1
- Flies, midges and mosquitos must be eradicated in breeding places before they reach an adult stage.
- Blowflies can be controlled by breeding sheep which are broad, and have smooth structure in the crotch.
- Lice and ticks can be controlled through the use of pesticides used as dips or sprays. (3 × 2) (6)

3.2
- Blowfly
- Nose worm
- Lice
- Ticks (4)

3.3
- Sheep should be loaded onto transport using a ramp or a raising loading bay✓✓
- The angle of the ramp should not be too steep✓ and any gap between the truck and the ramp should be covered to avoid injuries✓ (4)

3.4
- Ear tags
- Ear notches
- Tattooing
- Branding (4)

3.5
- Production performance
- Conformation
- Fleece properties
- Fertility
- Breeding potential
- Type (Any 4 × 1) (4)

3.6
- Cross-bred animals are, in general, not suited for breeding.
- Hereditary defects are hidden and may appear again in later generations.
- Offspring are variable and less uniform in certain desired traits. (3)

[25]

TOTAL SECTION B: 50

SECTION C

QUESTION 4

4.1
- It can survive and produce under extensive conditions,
- It can be fed on kitchen waste,
- It is disease resistant,
- It is relatively resistant to external parasites, (4 × 2) (8)

4.2
- Good length, fine head, neck and shoulders
- Well-fleshed, full hams
- Good mothering ability
- Economically good converters
- Evenly distributed fat
- High fertility (Any 4 × 1) (4)

4.3 4.3.1
- Dry sows should never be too fat.✓
- They must be fed in such a way that they will remain healthy and strong.✓
- Small grazing camps provide suitable grazing,✓ especially fresh lucerne with small quantities of concentrate.✓
- 2 kg of balanced concentrate per day is needed if they are not receiving any food in the form of grazing.✓ (5)

4.3.2
- Boars should never be too fat.
- They must be fed in such a way that they will remain healthy and strong.
- Regular exercise is required in small camp covered with a roof for shade.
- Small grazing camps or green fodder if available is ideal,
- 2 kg to 3 kg of balanced concentrate per day is needed if they are not receiving any food in the form of grazing. (5)

4.4 Colostrum provides maternal antibodies, energy and protein required by piglets to grow. (1)

4.5
- Piglets are born with a limited supply of iron which is usually used as they grow.
- Provision of iron helps to prevent anaemia. (2)

[25]

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QUESTION 5

5.1
- The boar house should be constructed in such a way that it will be cool in summer.
- The floor must not be slippery so that boars cannot get inured.
- The house should be situated in such a way that it is easy to serve sows.
- Boars must be kept within sight, sound and smell of the sows.
- The smell, sight and sound of a boar helps to bring sows into season quickly.
- Boars need an exercise area to keep fit and healthy, (5)

5.2 5.2.1
- Fosters uniform families because it increases hereditary powers
- Helps to uncover genes that produces abnormalities or death
- Maintains a close relationship between successive generations and superior ancestors
- Maintenance of desired traits and type
- Encourages prepotency (5)

5.2.2
- Maternal heterosis (hybrid vigour)
- Better adaptability
- Usually produces better maternal instincts
- Maintenance of desired traits and type
- Encourages prepotency (Any 2 × 1) (2)

5.3
- Tape worm
- Ascaris worm (2)

5.4
- Still birth
- Embryonic death
- Infertility
- Abortion (4)

5.5
- Reduces the risk of piglet mortality
- Considered economical, efficient and safe
- Saves space (3)

5.6
- Control rodents.
- Eliminate/Isolate sows carrying the disease.
- Maintain buildings by repairing cracks in floors.
- Vaccinate all pigs at weaning age.
- Vaccinate all sows after each breeding cycle. (Any 4 × 1) (4)

[25]

TOTAL SECTION B: 50
GRAND TOTAL: 150

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