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Province of the
EASTERN CAPE
EDUCATION

NATIONAL SENIOR CERTIFICATE

IBANGA 12

SEPTEMBA 2023

ISAYENSI YEZOLIMO P1

AMANQAKU: **150**

IXESHA: **2½ iiyure**

Eli phepha lemibuzo linamaphepha ali18.

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IMIYALELO NEMIQATHANGO

1. Eliphepha lemibuzo liqulathe amacandelo amaBini angala: ICANDELO A kunye ne CANDELO B.

2. Phendula YONKE imibuzo kwi NCWADI YOKUPHENDULA.

3. Qala umbuzo ngamNYE kwiphepha ELITSHA.

4. Nombola impendulo zakho ngokuchanekileyo, nangokwendlela ekunonjolwe ngayo kwiphepha mibuzo.

5. Unokusebenzisa isixhobo sokubala esingacwangwisangwa.

6. Bonakalisa ZONKE izibalo, kuquka nefomula apho zisetyenziswe khona.

7. Bhala ngocoselelo nangokucacileyo.

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ICANDELO A

UMBUZO 1

1.1 Iindlela ezohlukileyo zinikwe njengeempendulo kule mibuzo ilandelayo. Khetha impendulo echanekileyo uze ubhale unobumba kuphela (A–D) ecaleni kwenombolo yombuzo (1.1.1 ukuya ku 1.1.10) kwiNCWADI YOKUPHENDULELA, umzekelo 1.1.11 A.

1.1.1 Ichemical digestion kwiinkukhu yenzeka kwi …

A crop.
B proventriculus.
C gizzard.
D ventriculus.

1.1.2 Iifinger-like protrusions ezanza ubushushu kwirumen.

A Zipapillae
B Zimicro-fingers
C Yivilli
D Zimacro-villi

1.1.3 Iifat-soluble vitamin ezifuneka ukwenza imisebenzi ebalulaekileyo emzimbeni wesilwanyana.

A YiCobalamin kunye novitamin K
B YiThiamine kunye novitamin E
C YiRiboflavin kunye nepyridoxine
D YiRetinol kunye novitamin D

1.1.4 Elandelayo yimisebenzi yejuice ekhutshwa sisibindi.

(i) Iqinisa ukutshintshwa kwepepsinogen yenziwe ipepsin.
(ii) Itshintsha ipH ukusuka kwiasidi iyise kwialkaline.
(iii) Yandisa ukutsalwa kweefatty acid.
(iv) Yandisa ukunyityilikiswa kwamafutha.

Khetha indibanisela ECHANEKILEYO:

A (i), (iii), no (iv)
B (ii), (iii) no (iv)
C (i), (ii) no (iv)
D (i), (ii) no (iii)

1.1.5 Iinkomo ziyakhathaza xa …

A ziqhutywa zingumhlambi.
B zilandela umalusi.
C ziqhutywa zohlukahlukene.
D ziqhutywa ngendlela eziyiqhelileyo

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1.1.6 Elandelayo yimigaqo engundoqo xa kuqhutywa izilwanyana:

(i) Izilwanyana ezahlukileyo mazikweliswe kunye.
(ii) Izilwanyana ezimithiyo nezenzakeleyo mazingahanjiswa.
(iii) Izilwanyana mazohlukaniswe ngeminyaka nangokwesini xa zihanjiswa.
(iv) Ukukhaliswa kwesabhokwe nemilozi xa zihamba endleleni

Khetha indibanisela ECHANEKILEYO:

A (i), (iii), no (iv)
B (ii), (iii) no (iv)
C (i), (ii) no (iv)
D (i), (ii) no (iii)

1.1.7 Okulandelayo AKUCHANEKANGA ngokwe life cycle ye one host tick:

A Amaqanda aqanduselwa enze ilarvae
B Ilarvae ikhula ibeyinymph
C Ilarvae nenymph zikhula kwi-immediate host
D Inymph ikhula ibelikhalane elidala

1.1.8 Iibacterial disease ezosulelayo.

A Yianthrax nemastitis
B Yilumpy wool nepolyneuritis
C Yiavian flu netuberculosis
D Ziringworm neanaplasmosis

1.1.9 Inqanaba lecourtship ngexesha lokukwelana kwezilwanyana liboniswa ...

A ngokhutshwa kwesimeni isiwekumphambili wevagina.
B intromission into the vagina.
C ngokuqina kwepenisi isenziwa ziipheromone.
D ngokukhwelwa kwemazi yesilwanyana ivumela ipenetration.

1.1.10 Esona sizathu sokulumla kwenkomo phambi kokuba iphinde ilungele ukwanyisa …

A kukuqinisekisa ukumitha kwamsinya
B kukunciphisa ingxaki zokumitha.
C kukwenza libelufutshane ixesha lokumitha
D kukuvumela ixesha lokuvela kweeglandular tissue. (10 x 2) (20)

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1.2 Bonisa ukuba inkcazelo nganye ku Kholam B isebenza ku **A KUPHELA, B KUPHELA, BOBABINI U A NO B** or **NANYE** yezinto eziku KHOLAM A. Bhala **A kuphela**, **B kuphela**, **bobabini u A no B** okanye **nanye** ecaleni kweenombolo zemibuzo (1.2.1 ukuya ku 1.2.5) kwincwadi yokuphendulela, umzekelo 1.2.6 B kuphela.

KHOLAM A			KHOLAM B
1.2.1	A:	Yuriya	Iprotein supplement ekutyeni kwezilwanyana ezetyisayo ngexesha lasebusika xa komile
	B:	Biuret	
1.2.2	A:	Umthamo	Irergugitated bolus ethi ibuyele emlonyeni
	B:	Chyme	
1.2.3	A:	Ukungaphatheki kakuhle	Ukubalishica nokuqina kwenyama emveni kokuba ixheliwe
	B:	Ukuphatheka kakuhle	
1.2.4	A:	Liver fluke and nechicken lice	Internal parasites ezinkukhwini
	B:	Bont tick and wireworm	
1.2.5	A:	Endoderm	Inoxanduva lokukhula keerespiratory nedigestive sistim
	B:	Ectoderm	

(5 x 2) (10)

1.3 Nika igama/ithem libeliNYE ngenkcazelo NGANYE engezantsi. Bhala igama/ithem kuphela ecaleni kweenombolo zemibuzo (1.3.1 ukuya ku1.3.5) kwi NCWADI YOKUPHENDULELA.

1.3.1 I-index esetyenziswa ukufumana umgangatho we pretein ekutyeni

1.3.2 Isistim apho ukuveliswa kwezilwanyana nezityalo kwenzelwe ukondla usapho

1.3.3 Imeko apho izilwanya zifumane ubunzima xa zizalayo

1.3.4 Isistim esusa iwaste products kwi tissues zebele lenkomo ziye kwiexcretory organs

1.3.5 Ukungabinamdla kweenkunzi kwisondo (5 x 2) (10)

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1.4 Tshintsha AMAGAMA AKRWELELWE UMGCA NGAPHANTSI kwibinnzana NGALINYE kwalandelayo uwenze ANYANISEKE, bhala impendulo echanekileyo kuphela ecaleni kweenombolo zemibuzo (1.4.1 ukuya ku1.4.5). KWINCWADI YOKUPHENDULELA.

1.4.1 Inutrition programme sistrategic plan somfuyi wempahla emfutshane ukuqinisekisa ukubakho kokutya ukwanelisa imfuno zempahla izilwanyana unyaka wonke.

1.4.2 IAcute diseases zihlala ixesha elide futhi zifumaneka amatyeli ngamatyeli kwisilwanyana esinye.

1.4.3 IForeskin sisingxobo esehluke kubini sivalele kwaye sikwakhusele itestes.

1.4.4 Iumbilical cord yivascular membranous organ edibanisa igazi lomntwana nonina ndowonye.

1.4.5 iEmbryo splitting yiprosesi xa iblastocyst incamathela kudonga lwesibeleko. (5 x 1) (5)

EWONKE KWICANDELO A: 45

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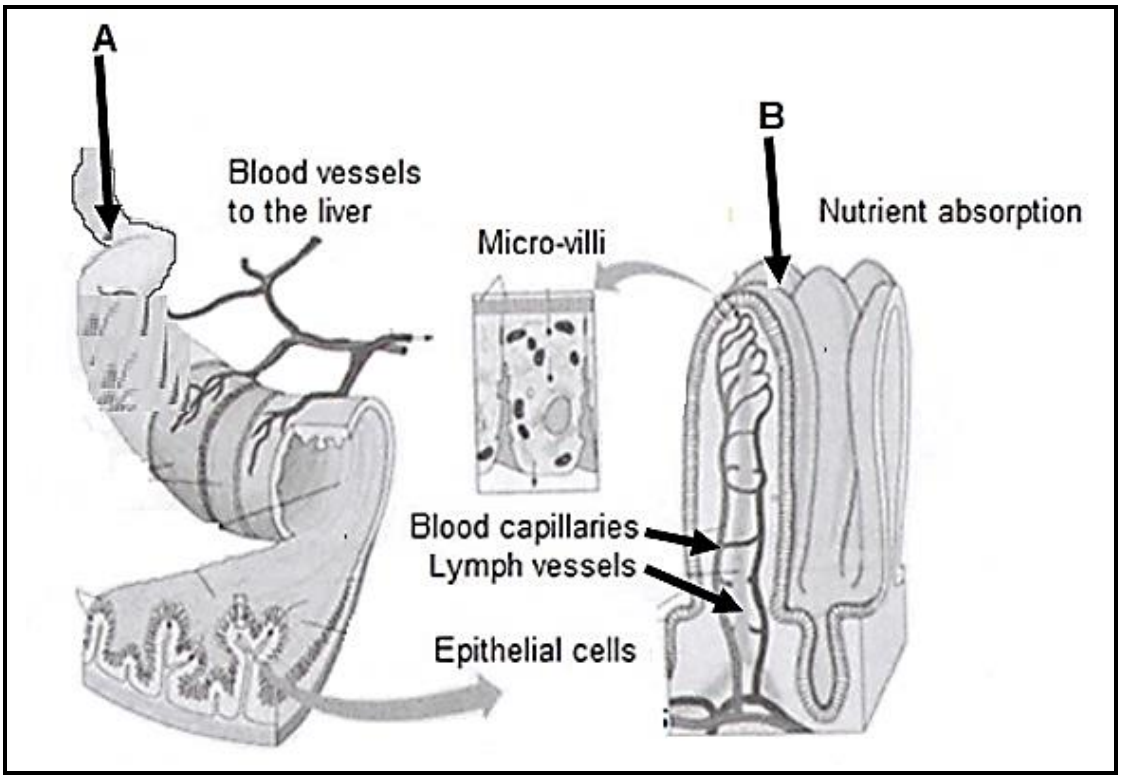
ICANDELO B

UMBUZO 2: ISONDLO NOKUTYA KWEZILWANYANA

Qala lo mbuzo ephepheni ELITSHA.

2.1 Idayagram engezantsi ibonisa isiqingatha esithile se-alimentari khanal yesilwanyana.



2.1.1 Xela indawo kule alimentari khanali elebhelishwe ngo **A**. (1)

2.1.2 Nika imeko ZIBEMBINI ezibonakalayo kumboniso ongentla owenza indawo **B** yenze kakuhle umsebenzi wayo. (2)

2.1.3 Nika inutriyenti ethi ifunxwe ngendawo nganye kwezilandelayo:

(a) Isitya se-lymph (Lymph vessel) (1)

(b) ii-capillaries zegazi (Blood capillaries) (1)

2.1.4 I-inner lining echazwe kuMBUZO 2.1.1 isongene. Chaza ukuba lo msongano ulwenza ngcono njani ufunxo lwezakha mzimba ekutyeni. (2)

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2.2 Itheyibhile engezantsi ibonisa iikhomponenti zefidi kwiration.

IIKHOMPONENTI ZEFIDI	UBUNGAKANANI (kg)
Umili mili	50
Iyuriya	5
Luseni hay	70
Oat hay	40
Molasisi	30

2.2.1 Chonga okulandelayo kwiration ekwitheyibhile engentla:

(a) Energy-rich khonsentrate (1)

(b) Protein-rich rafeji (1)

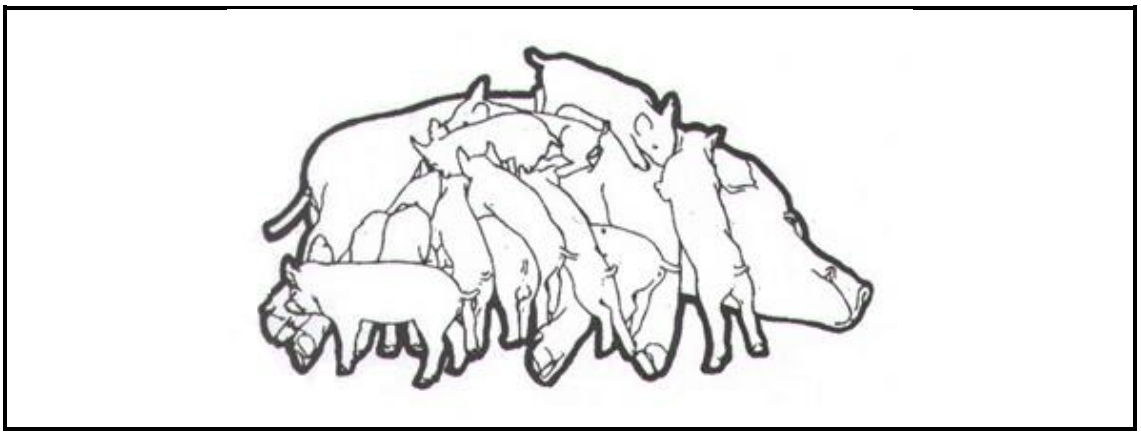
2.2.2 Chaza uhlobo lwesilwanyana esinokusebenzisa iration engentla ngempumelelo. (1)

2.2.3 Chaza impendulo ekUMBUZO 2.2.2 ngokugxile kwikhompozishini yeration ne adaptation feature yesilwanyana. (2)

2.2.4 Chonga ikhomponethi yeration engentla enokuphucula incasa nokucoleka kweowuthi hay. (1)

2.2.5 Sebenzisa ingcombolo ingentla ukuplota ibar grafu. (6)

2.3 Idayagram engezantsi ibonakalisa imazi yehagu namantshontsho ayo.



2.3.1 Xela igama lemineral elementi ebonise ukusilelela xa ihagu namantshontsho ayo zihlala kumgangatho owenziwe ngesamente. (1)

2.3.2 Chonga ibeNYE kwimpawu ezithi ziboniswe kukushokoxeka kwemineral exelwe kuMBUZO 2.3.1. (1)

2.3.3 Xela imethodi enokongezwa ngayo emzimbeni wesilwanyana le mineral isilelayo. (1)

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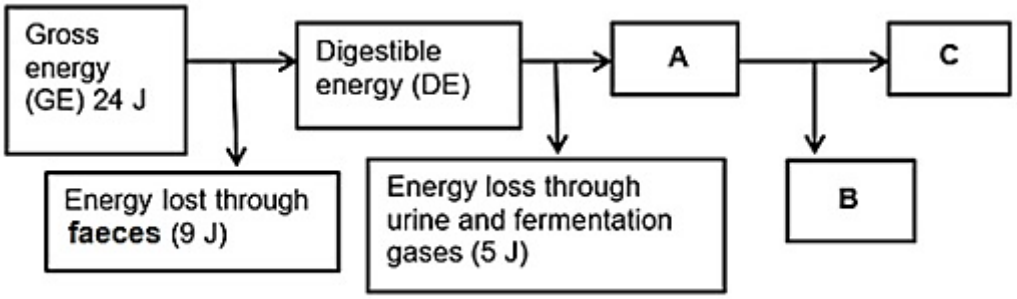
2.4 Indidi zokutya eziMBINI zidityaniswe kwireyisho ka 8 : 20 ukufumana ukutya okune17% yedigestible prothein khontenti.

2.4.1 Chonga ipart yereyisho ebonisa isunflower oil cake meal. (1)

2.4.2 Chaza impendulo EKUMBUZO 2.4.1. (2)

2.4.3 Bala ipesenteji yecarbohydrate rich feed kumxube wokutya. Bonisa ZONKE ikhaltyhuleyishini. (3)

2.5 Iflow chat.engezantsi ibonisa izinga lamandla okutya.



2.5.1 Chonga ieneji elahleke ku **B**. (1)

2.5.2 Ieneji ekuC ibaluleke kakhulu kwizilwanyana zasefama, Xhasa le ntetha ngezizathu eziBINI. (2)

2.5.3 Bala ienji value eboniswe ku **A**. (2)

2.5.4 Xela zibeMBINI iinjongo zokubala ieneji value yokutya. (2)
[35]

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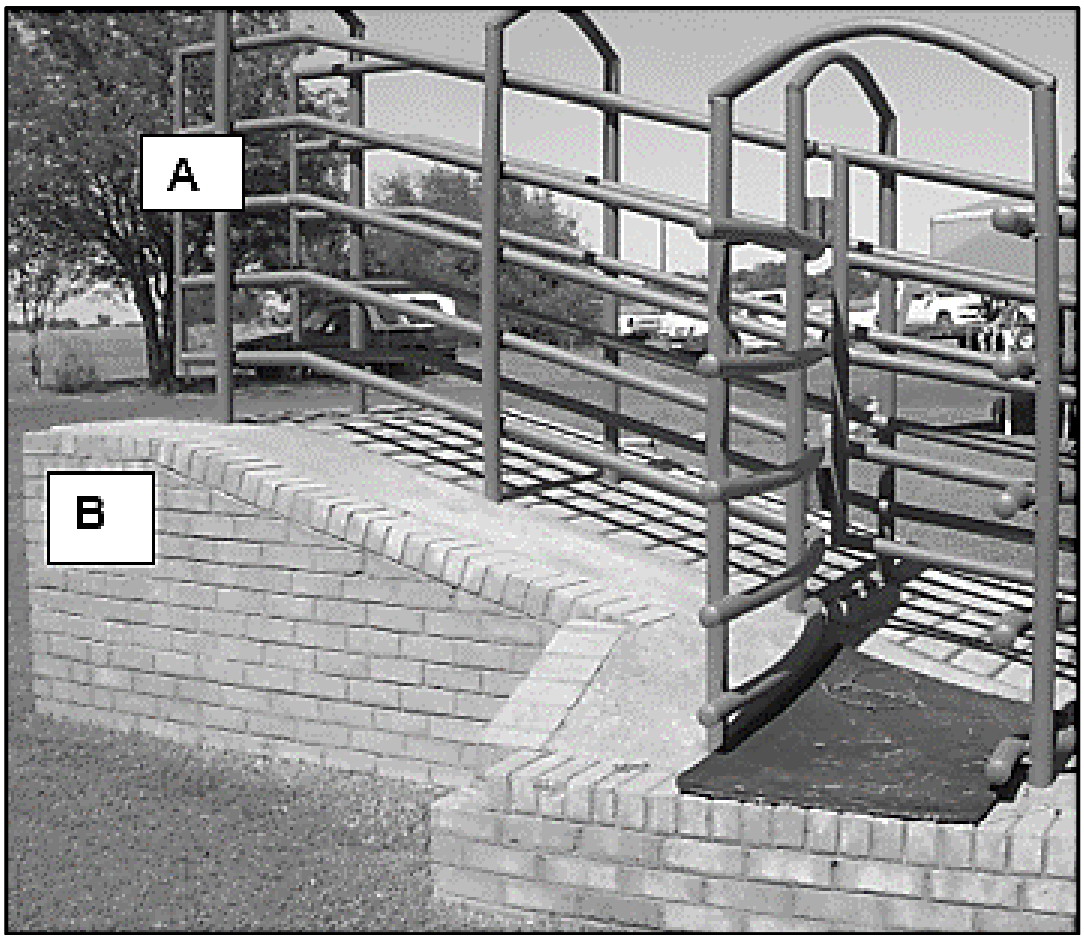
UMBUZO 3: UKUVELISWA, UKUKHUSELWA KUNYE NOKULAWULWA KWEZILWANYANA

Qala umbuzo ephepheni ELITSHA.

3.1 Umfanekiso ongezantsi ubonisa iekhwiphmenti ethi isetyenziswe xa kubanjwa izilwanyana efama.



3.1.1 Xela ifasilithi elabhelishwe ku **B**. (1)

3.1.2 Nika isizathu sokusetyenziswa kwefasilithi elabhelishwe ku **A**. (1)

3.1.3 Ifasilithi elabhelishwe ku **A** yeyona ikhuselekileyo ukubamba izilwanyana ezinkulu. Jongisisa le fasilithi ingentla ze uxhase impendulo. (2)

3.1.4 Nika izizathu zibeZIBINI zokubamba izilwanyana efama usebenzisa ifasilithi elebhelishwe ku **A**. (2)

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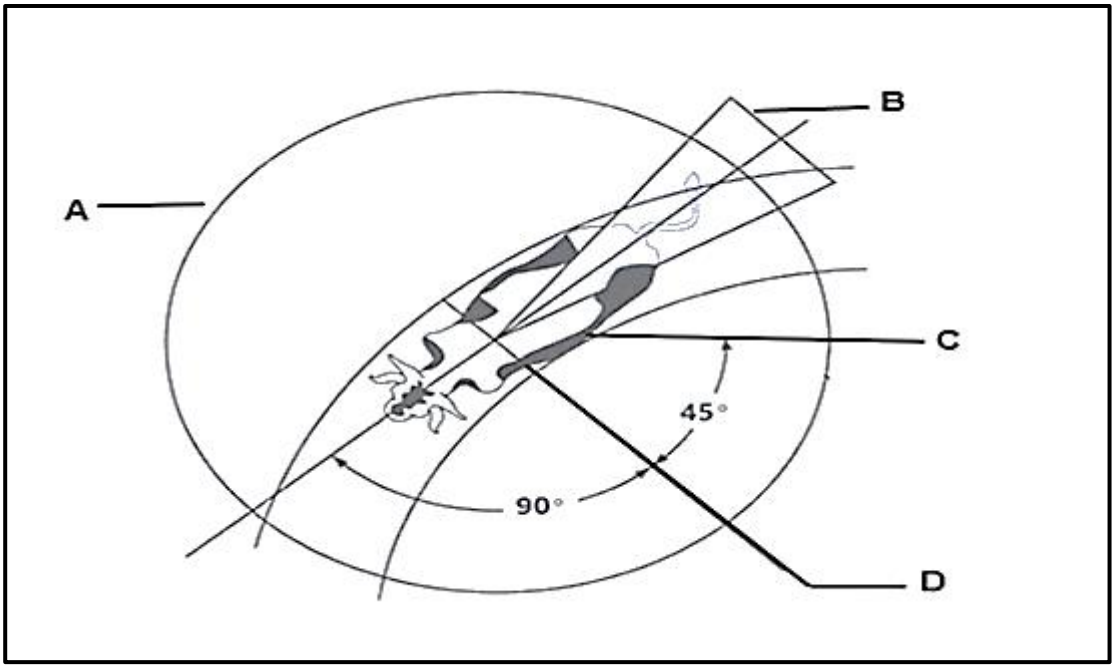
3.2 Idayagram engezantsi ibonisa ukwehlukana kweendawo zombambi wezilwanyana xa ezibamba naxa esebenza ngazo.



3.2.1 Chonga unobumba olungelelene neepozishinzi ezilandelayo:

(a) Owona mgama efanele izilwanyana xa zisengozini (1)

(b) Ipoyinti yekubhalanisa (1)

(c) Umbambi wezilwanyana aqalise intshukumo yesilwanyana (1)

3.2.2 Qikelela isimo sesilwanyana xa sibanjwa kwipoyinti elebhelishwe ku **B**. (1)

3.2.3 Chaza zibeZIBINI ezinye zezimo eziqhelekileyo eziboniswa zizilwanyana xa ziphantsi koxinzelelo. (2)

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3.3 Abafuyi bempahla emfutshane basebenzisa iziseko ezahlukeneyo ukukhusela nokuvalela izilwanyana efama.

3.3.1 Cacisa ngokupheleleyo injongo zokusetyenziswa kwezifasilithi zilandelayo ekubanjweni kwemfuyo:

(a) iholding pen (1)

(b) ifarrowing pen (1)

(c) iholding shed (1)

3.3.2 Xela izizathu zibe ZITHATHU zokuvalelwa kwezilwanyana zasefama. (3)

3.4 Itheybhile engezantsi ibonakalisa izifo ezihlasela izilwanyana zasefama.

DISEASE	PATHOGEN	KEY SYMPTOMS	MODE OF TRANSMISSION	PREVENTION METHOD
A	ivirus	Umathe amaninzi nolaka	Ukulunywa sisilwanyana esosulelweyo	Ukugonywa
imastitis	**B**	**C**	Impukane	Impilo entle yokutya
D	iprotozoa	Uhambiso olumanzi	Ukutya okunentsholongwane	**E**

3.4.1 Lebhelisha u **A**, **B**, **C**, **D** no **E**. (5)

3.4.2 Chaza indima edlalwa zezi ofisi ukukhusela izifo kwizilwanyana:

(a) uMfama (1)

(b) URulumente (1)

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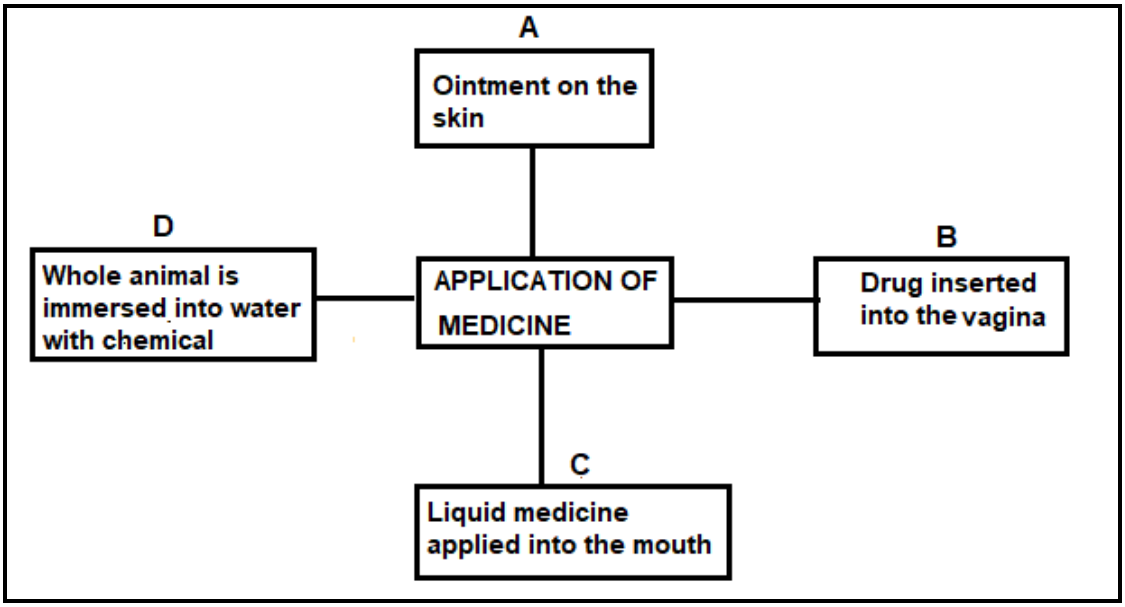
3.5 Iflow dayagram engezantsi ibonisa iimethodi zokutyisa nokusetyenziswa kwamayeza kwizilwanyana.



3.5.1 Nika imethodi yokunikezwa kwamayeza kwisilwanyana njengoko iboniswe ku **A**, **B** no **D**. (3)

3.5.2 Chonga unobumba obonisa imethodi ezinyangwa ngayo izimfimfithi zilandelayo:

(a) iroundworm (1)

(b) iblue ticks (1)

3.5.3 Nika iindlela eziMBINI apho amayeza anokusetyenziswa ixesha elide. (2)

3.6 Izityalo ezinethyefu zibangela uloyiko kwizilwanyana zasefama kuba ziyazibulala xa zithe zazitya.

3.6.1 Nika sityalo esinetyhefu besiNYE exhaphakileyo ukufumaneka emadlelweni. (1)

3.6.2 Xela imeko zibeMBINI umfama anokuthi azisebenzise ukunqanda izityalo ezinethyefu emadlelweni. (2)

[35]

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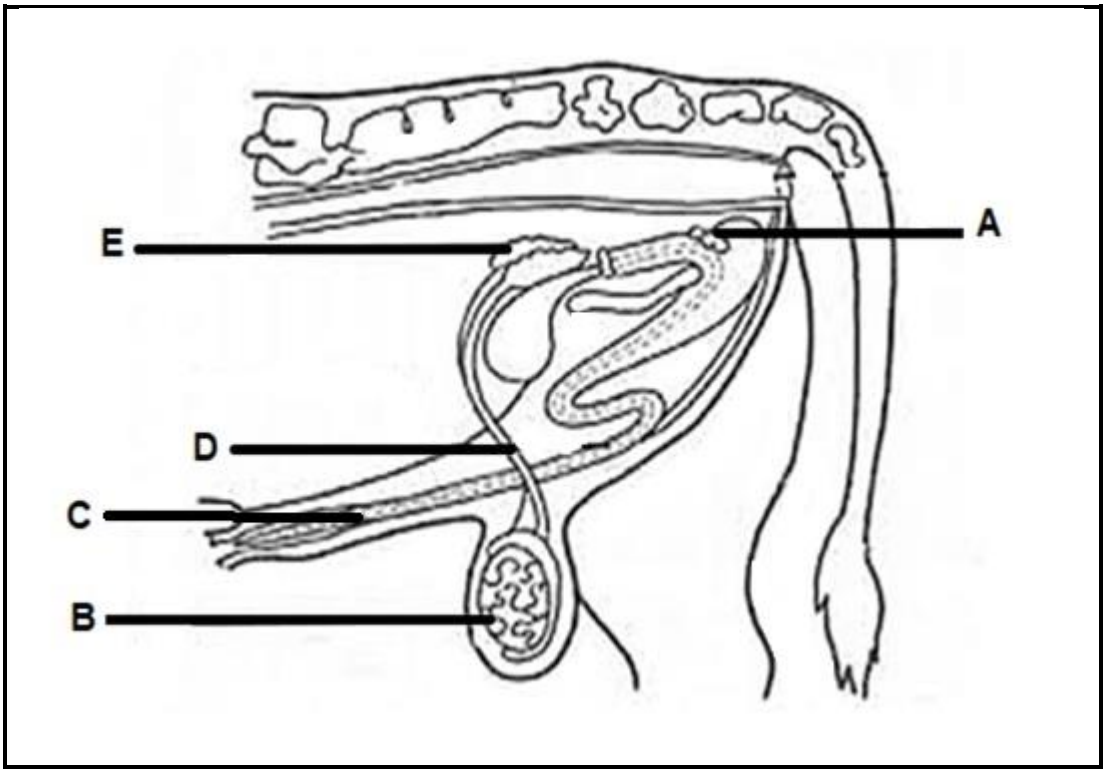
UMBUZO 4: UKUZALWA KUNYE NOKUKHIQIZWA KWAMANKONYANA

Qala lo mbuzo kwiphepha ELITSHA.

4.1 Idayagram engezants ibonisa ireproductive sistim yesilwanyana sasefama.



4.1.1 Chonga unobumba omele okulandelayo:

(a) Ukodliwa kwesperm seli yiSERTOLI cells ngelixa lespermatogenesis (1)

(b) Ukuhanjiswa kwesperm seli zisiya kwiurethra (1)

(c) Ukukhutshwa kwencindi encangathi enika ieneji kwisperm seli (1)

4.1.2 Xela iisecongenital defect zibeMBINI ezikunombolo **B** ezinokwenza uphazamiso kwinzala yenkunzi ngonaphakade. (2)

4.1.3 Xela indima ethi idlalwe ngunobumba **C** kwimveliso. (1)

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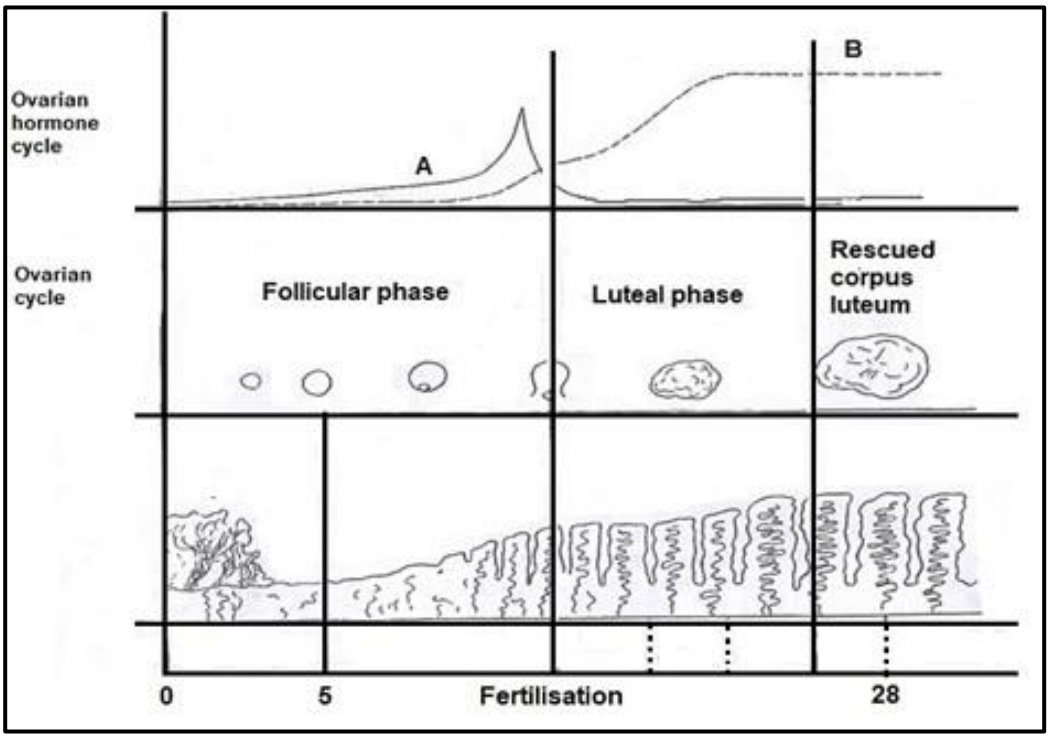
4.2 Idayagram engezantsi ibonisa umsebenzi weehormonzi ezikhutshwa ngelixesha leoestrus cycle.



4.2.1 Nika ixesha elithathwa yioestrus cycle eboniswe ngentla. (1)

4.2.2 Nika iihormoni eziboniswe ku **A** no **B**. (2)

4.2.3 Nika okulandelayo ngexesha lefollicular stage:

(a) Istage seoestrus cycle (1)

(b) Ihormone eyenza lo msebenzi (1)

4.2.4 Cebisa imisebenzi ibe miBINI yehormoni elebhelishwe ku **B** xa inkomo ebonalakiswe kwi oestrus cykle engentla imitha. (2)

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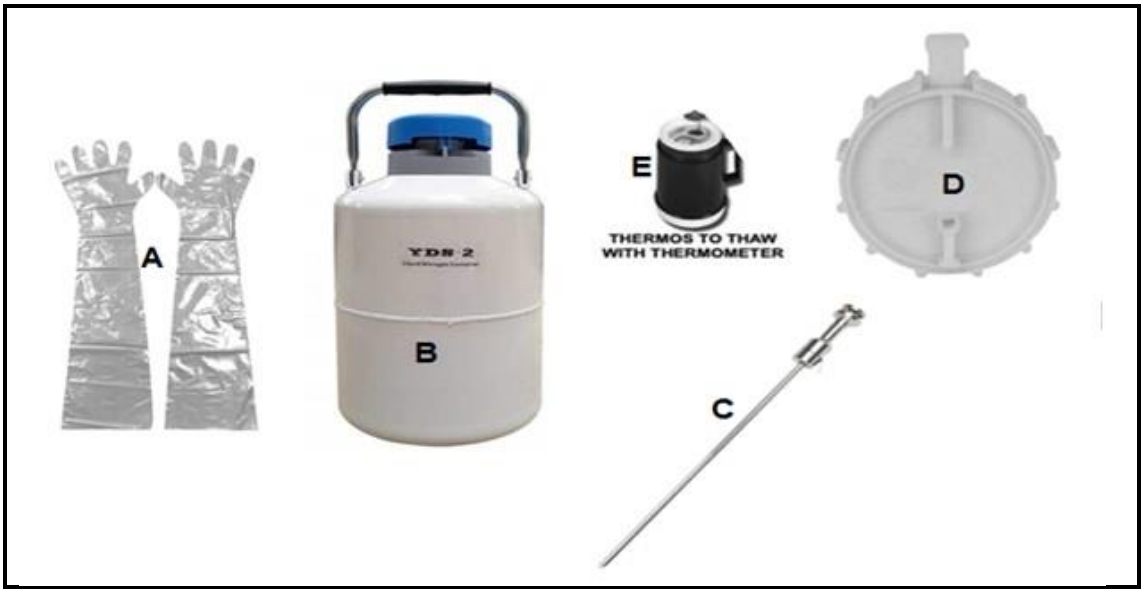
4.3 I-ekhwiphmenti engezantsi isetyenziswa xa kusenziwa iartificial insemination.



4.3.1 Xela isizathu sokusetyenziswa iekhwiphmenti elabhelishwe ku **C**. (1)

4.3.2 Xela zibeMBINI iziseko eziyimfuneko xa usebenzisa isixhobo esilebhelishwe **B**. (2)

4.3.3 Chonga unobumba we-ekhwiphmenti ethi iqinisekise okulandelayo:

(a) Isimeni ayichatshazelwa zintsholongwane ngu-insemitor (1)

(b) Isimeni ikulungele ukusetyenziswa emva kokuba ibigcinwe kwisikhenkcezisi (1)

4.3.4 Xela ibeNYE idisadvanteji yokusetyenziswa kwe-ekhwiphmenti echazwe kuMBUZO 4.3 ngumfama. (1)

4.3.5 Nika iiadvanteji zibeMBINI zeartificial insemination. (2)

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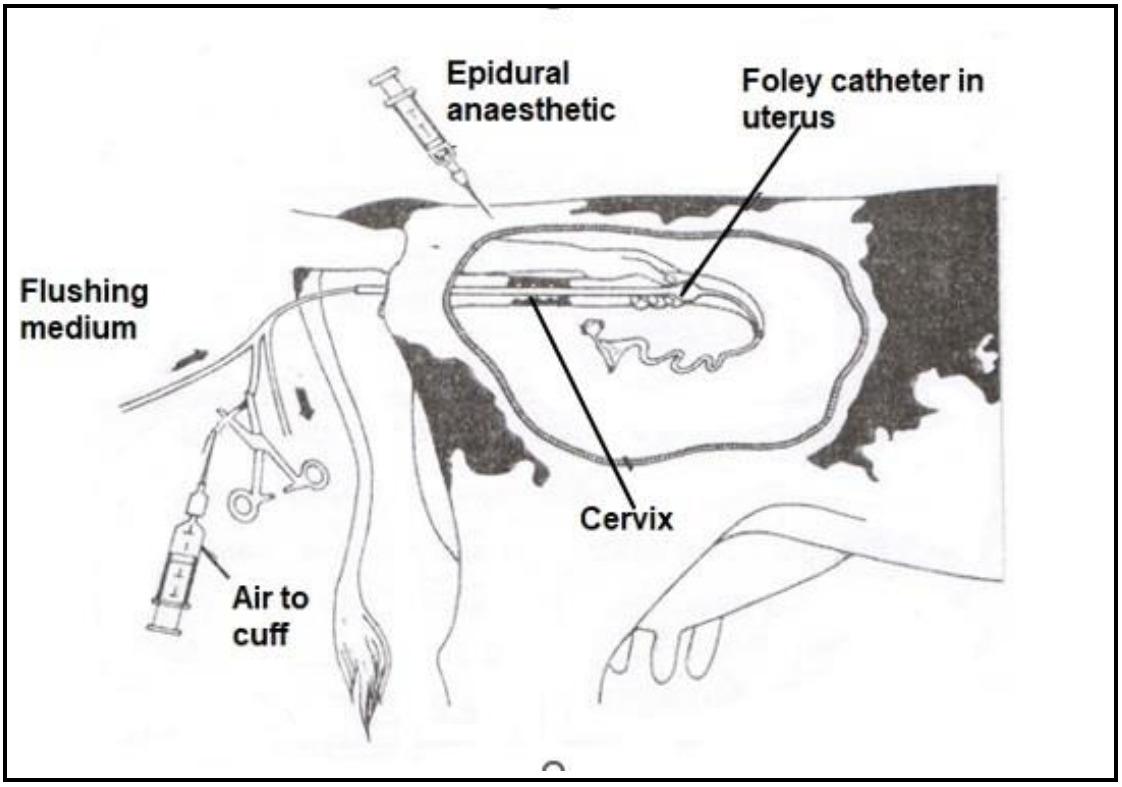
4.4 Idayagram engezantsi ibonisa iprosija elandelwayo xa kusenziwa iembryo tranfer.



4.4.1 Chonga iprosija eboniswe ngentla. (1)

4.4.2 Nika uhlobo lwenkomo apho yenziwa khona iprosija. (1)

4.4.3 Xela isizathu sokusetyenziswa kwehlobo lwenkomo elikhankanywe kuMBUZO 4.4.2. (1)

4.4.4 Nika injongo ibeNYE yokusebenzisa letechnique ingentla. (1)

4.4.5 Nika iidisadvanteyji zibeMBINI zale tekhniki kumfama. (2)

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4.5 Iflow chart engezantsi ibonisa indlela yokuhamba kobisi apho lenziwa khona kude lifike apho lincanca khona okanye lisengwa khona.

Teat cistern ⟶ Milk ducts ⟶ Alveolus ⟶ Teat canal ⟶ Gland cistern

4.5.1 Lungisa ngokokulandelelana kweoda, inqanaba apho ubisi liyakuhamba ukusuka kwipoyinti yokulenza de lifike ekusengweni okanye ekuncancweni. (5)

4.5.2 Chaza okulandelayo ngokwe milk let down process:

(a) Izitimuli zibeZIBINI eziqala iprosesi (2)

(b) Ihormoni esebenza kule prosesi (1)

[35]

AMANQAKU KWICANDELO B: 105
AMANQAKU EWONKE: 150

Akuvumelekanga ukufotokopa eli phepha

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