Find Plenty of Free Study Resources at www.studypapers.co.za

Province of the
EASTERN CAPE
EDUCATION

NATIONAL SENIOR CERTIFICATE

IBANGA 12

SEPTEMBA 2023

ISAYENSI YEZOLIMO P2

AMANQAKU: **150**

TIME: **2½ iiyure**

Eli phepha lemibuzo linamaphepha ali14.

Downloaded from www.studypapers.co.za

Find Plenty of Free Study Resources at www.studypapers.co.za

IMIYALEZO NENKCUKACHA

1. Eli phepha lemibuzo liqulethe amacandelo AMABINI, angala iCANDELO A neCANDELO B.

2. Phendula YONKE imibuzo KWINCWADI YOKUPHENDULA.

3. Qala impendulo nganye kwiphepha ELITSHA.

4. Nombola iimpendulo ngokwendlela ekunonjolwe ngayo kwiphepha lemibuzo.

5. Unokusebenzisa ikhaltyhuleyitha engacwangcwiswanga.

6. Bonakalisa ZONKE ikhaltyhuleyishini kuquka neefomyula apho zisetyenziswe khona.

7. Bhala ngocoselelo nokucacileyo.

Downloaded from www.studypapers.co.za

Find Plenty of Free Study Resources at www.studypapers.co.za

ICANDELO A

UMBUZO 1

1.1 Indlela ezahlukileyo zinikwe njengeempendulo ezichanekileyo kwimibuzo elandelayo. Khetha impendulo echanekileyo ze ubhale unobumba kuphela (A–D) ecaleni kwenombolo yemibuzo (1.1.1 ukuya ku 1.1.10) kwiNCWADI YOKUPHENDULA, umzekelo 1.1.11 D.

1.1.1 Imakethingi tshaneli apho umvelisi ethengisa imveliso yakhe ngee marketing agencies kwindawo ezinkulu zokuhlala:

A Stock sales
B Fresh produce markets
C Farm gate marketing
D Direct marketing

1.1.2 … yeyona cost-effective way yoku strimlayina ivelyu tsheyini yemveliso yezolimo.

A Ukuphucula iroad infrastracture
B Ukwakha ovimba bokugcina.
C Ushishino kunye ngokudibanisa imithwalo nabanye abavelisi
D Ukusebenzisa izikhenkcezisi neenqwelo ezinezikhenkcezisi

1.1.3 Chonga ulandelelwano oluchanekileyo lwezigaba ze-entrapreniyali prosesi.

A Business formation, idea generation, develop a business plan, mobilise resources
B Idea generation, mobilise resources, develop a business plan, business formation
C Idea generation, develop a business plan, mobilise resources, business formation
D Develop a business plan, idea generation, business formation, Mobilise resources

1.1.4 Okulandelayo yimizekelo yeetechnical risk kwifamingi.

(i) Imbalela nezikhukhula
(ii) Insect infestation
(iii) Ukutshintsha kwee interest reyithi
(iv) Ukuvela kwezifo

Khetha indibanisela eCHANEKILEYO:

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

Downloaded from www.studypapers.co.za

Find Plenty of Free Study Resources at www.studypapers.co.za

1.1.5 Iwhole farm bhajethi ibonisa …

A igrosi majini.
B Inethi fam inkham.
C Iprofithabhilithi yesingli entaprayizi.
D Ifuthe lotshintsho kwii ophareyishini zefama kwiprofithabhilithi.

1.1.6 Ibhizinesi kheshiflow bhajethi ibonisa ingeniso yeR700 000, inkcitho yeR400 000 neclosing bhalansi yeR500 000 yenyanga ethile.
Iopening bhalansi yenyanga elandelayo iyakubayi …

A R300 000.
B R1 100 000.
C R800 000.
D R500 000.

1.1.7 Ukuba umbala wesikhumbha esibomvu (R) udominenti kumbala wesikhumbha esimhlophe (r), yeyiphi kwikhrosi ezilandelayo eyakuba 1 : 1, red : white coloured progeny?

A RR X rr
B Rr X Rr
C Rr X rr
D rr X rr

1.1.8 I F_1-jenereyishini ifumaneka ngoku khrosa uPP no pp. Kwakhona inzala/iprowujeni ezelwe ngabo ya intakhroswa. Iyakuba ngubani ireyisho yepure breeding flowers kwinon-pure breeding flowers kuF_2?

A 3 pure : 1 non-pure
B 1 pure : 3 non-pure
C 1 pure : 2 non-pure
D 1 pure : 1 non-pure

1.1.9 … zisebenzisa iibiological vector ezinje ngeeplasmidi ukuthwala iiforeign gene ukuya kwiiseli.

A Lipofection
B Recombinant DNA technique
C Chemical poration
D Bioballistics

1.1.10 I… AYINGO mzekelo we chromosomal mutation.

A Substitution
B Deletion
C Duplication
D Translocation (10 x 2) (20)

Downloaded from www.studypapers.co.za

Find Plenty of Free Study Resources at www.studypapers.co.za

1.2 Khetha ithem kuKHOLAM B elihambelana nengcaciso ekuKHOLAM A. Bhala unobumba kuphela (A–H) ecaleni kweenombolo zemibuzo (1.2.1 ukuya ku1.2.5) kwi NCWADI YOKUPHENDULA, umzekelo 1.2.6 J.

KHOLAM A		KHOLAM B	
1.2.1	Imakethingi sistim enexabiso elikhulu elingazinzanga	A	Controlled marketing
1.2.2	Iproducer driven approach egxile kwiprowudakthi	B	Risk sharing
1.2.3	Ukusasaza iriski ngokuinvesta kwii entaprayizi ezahlukileyo efama.	C	Overcapitalisation
1.2.4	Iritheni oyifumana kwi-investmenti yefama incinci kakhulu kuneyezinye iifama	D	Sales
1.2.5	Umahluko phakathi kwee individyuwali zohlobo olunye	E	Diversification
		F	Variation
		G	Free marketing
		H	Undercapitalisation

(5 x 2) (10)

1.3 Nika igama eLINYE ngenkcazelo nganye kwezilandelayo. Bhala ithem KUPHELA ecaleni kweenombolo zemibuzo (1.3.1 ukuya ku 1.3.5) kwi NCWADI YOKUPHENDULA.

1.3.1 Ii-linkidi entithi eziza neprowudakthi ethile kwiprodakshini ukuyisa kwiconsumer

1.3.2 Umlinganiselo wokurisponda kubungakanani bedimandi beprodakthi okanye isupplied kutshintsho lwexabiso

1.3.3 Iphysical nementali efothi esetyenziswa ukuvelisa iimpahla nemisebenzi

1.3.4 Iprosesi yokuplana, yokuthatha isigqibo, ukuoganayiza nokukhontrola abantu, iifayinenshiyali neefizikhali resosizi zeoganizeyishini ukufikelela kwiinjongo zalo

1.3.5 Umlinganiselo wobungakanani bomahluko weejini zezilwanyana ekwenzeni umahluko kwiitrait zazo

(5 x 2) (10)

Downloaded from www.studypapers.co.za

Find Plenty of Free Study Resources at www.studypapers.co.za

1.4 Tshintsha AMAGAMA ANOMGCA NGAPHANTSI kwibinzana ngalinye alandelayo ukuwenza abeYINYANI. Bhala impendulo kuphela ecaleni kweenombolo zemibuzo (1.4.1 ukuya ku 1.4.5) kwiNCWADI YOKUPHENDULA.

1.4.1 Imaneyija ngumntu oqala ishishini, athathe iriski yemali ngethemba lengeniso.

1.4.2 Ikheshi anelesisi yianelesisi yeestrengths, weaknesses, opportunities neethreats zeshishini.

1.4.3 Ukusetyenziswa kwestathistiksi eku analayizeni ibhayolojikhali datha kubizwa bridingi.

1.4.4 IPolyploidy luhlobo lwemutheyishini apho kukho utshintsho kwinani lekhromozom enye okanye ezininzi kwikhromozom sethi.

1.4.5 Isilekshini bubungakanani bokonyuka okanye bokwehla kune avareyiji ioofspring ye individyuwali eyakuba nophawu oluthile.

(5 x 1) (5)

EWONKE ECANDELO A: 45

Downloaded from www.studypapers.co.za

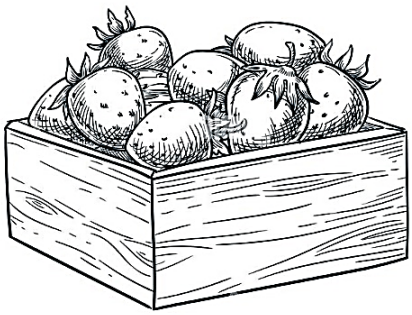
Find Plenty of Free Study Resources at www.studypapers.co.za

ICANDELO B

UMBUZO 2: IAGRIKHALTSHARAL MANEYIJIMENTI NEMAKETHINGI

Qala lo mbuzo kwiphepha ELITSHA.

2.1 Umfanekiso ongezantsi ubonisa umzekelo we marketing function.



2.1.1 Chonga imarketing function eboniswe ngentla. (1)

2.1.2 Chaza imikhombandlela emiBINI elawula imarketing function ekuMBUZO 2.1.1. (2)

2.1.3 Cacisa ithem *marketing.* (2)

2.2 Itheyibhile engezantsi ibonisa izixa zeprowdakthi esaplaywe nedimandwe ngamaxabiso ahlukileyo.

IXABISO	ISIXA ESISAPLAYIWEYO	ISIXA ESIDIMANDIWEYO
10	20	160
20	40	140
30	60	120
40	80	100
50	100	80
60	120	60
70	140	40

2.2.1 Beka inkcukacha ekwitheyibhile engentla ngohlobo lwelayini grafu. (6)

2.2.2 Fumana iequilibrium prayisi ekwigrafu . (1)

2.2.3 Cacisa ilaw yesaplayi (law of supply). (2)

2.2.4 Nika iifektha EZIMBINI ngaphandle kweprayisi ezichaphazela isaplayi seprowudakthi. (2)

Downloaded from www.studypapers.co.za

Find Plenty of Free Study Resources at www.studypapers.co.za

2.3 Amafama amathathu asebenzisa iimakethingi aprowutshi ezahlukileyo ezicaciswe ngezantsi.

UMFAMA A	UMFAMA B	UMFAMA C
Ufuna uku advethayiza kangangoko kwisiseko sabathengi de afikelele kulo lonke uhlobo loshishino olukhoyo.	Uneprowudakthi efana yodwa. Upromowutha athengise iprowudakthi kuhlobo oluthile lwesegment yemakethi.	Ugqibe ngokunika iindlela ezahlukileyo kwimakethi segmenti nganye ezahlukileyo ngethagethi eyichongileyo.

2.3.1 Chonga imakethingi aprowutshi esetyenziswe ngaMAFAMA **A**, **B** no **C**. (3)

2.3.2 Chonga imakethingi aprowutshi engalungela ibhizinesi ezincinci. (1)

2.3.3 Xhasa impendulo kuMBUZO 2.3.2 ngezizathu eziBINI. (2)

2.4 Analayiza ilogo engezantsi ujolise kwimibuzo elandelayo.

2.4.1 Xela iprosesi yokubeka ilogo efana neboniswe ngentla. (1)

2.4.2 Ilogo eboniswe ngasentla isetyenziswa kwisustainable marketing. Chaza isustainable marketing. (1)

2.4.3 Nika izidingo zibeMBINI emazizalisekiswe ekupakisheni kwisustainable marketing. (2)

2.5 Enye yemiceli'mngeni emikhulu amafama ajongene nayo kwiiagricultural value chain kukuba banyanzeliswa ngokwamkela amaxabiso emakethi. Bane bargaining power encinci kwicala le input nelesaplaya. Noxa kunjalo, ngokusebenzisana banokuba nefuthe elikhulu ekuhambiseni iprofithi kwivalue chain.

2.5.1 Chonga eyona ngxaki inkulu ejongene namafama. (1)

2.5.2 Fumana isisombululo esinikiweyo kumhlathi. (1)

2.5.3 Chonga imarketing system ehambelana nesisombululo esinikiwe kumhlathi. (1)

2.5.4 Nika iiadvanteyiji eziMBINI zemarketing system ezichongwe kuMBUZO 2.5.3. (2)

Downloaded from www.studypapers.co.za

Find Plenty of Free Study Resources at www.studypapers.co.za

2.6 Ibhizinesi pleni yidotyhumenti ecacisa ngeenjongo zekamva lebhizinesi neendlela zokufikelela kuzo.

2.6.1 Nika izizathu eziMBINI zokuxhasa ukusetyenziswa kweebhizinesi pleni kwifarm business management. (2)

2.6.2 Cebisa iindlela eziMBINI iielekhtronikhi resosi ezingasetyenziswa ngazo xa kuyilwa ibhizinesi pleni. (2)

[35]

Downloaded from www.studypapers.co.za

Find Plenty of Free Study Resources at www.studypapers.co.za

UMBUZO 3: IIPRODAKSHINI FEKTHA

Qala lombuzo kwiphepha ELITSHA.

3.1 Ubungakanani bemveliso yomhlaba buxhomekeke kwiifisikhali kharaktheristikhi zomhlaba. Ingonyuswa ibekwizinga elithile ngeyunithi nganye ngeteknoloji ephuculweyo, noxa kunjalo izinga elo lingafikelelwa xa imveliso ingenakho ukunyuka ngokonyuswa ngeeyunithi zeinput.

3.1.1 Chonga i-ikhonomikhi kharaktheristikhi yomhlaba echazwe kwisinariyo. (1)

3.1.2 Nika iindlela eziMBINI umfama anokuphucula ngayo imveliso yomhlaba. (2)

3.1.3 Nika ibeMIBINI imisebenzi yomhlaba njenge prodakshini fektha. (2)

3.2 Umfanekiso ongezantsi ubonisa abasebenzi basefama bekuqhankqalazo.

3.2.1 Xela umthetho onika mandla abasebenzi benze uqhankqalazo. (1)

3.2.2 Xela ezinye izinto eziMBINI ezichazwa ngumthetho onikwe kuMBUZO 3.2.1 ngasentla. (2)

3.2.3 Nika onobangela abaBINI boqhankqalazo lwabasebenzi basefama. (2)

3.2.4 Cebisa iindlela eZIMBINI ezinokusetyenziswa ngamafama ukonyusa imveliso yabasebenzi. (2)

Downloaded from www.studypapers.co.za

Find Plenty of Free Study Resources at www.studypapers.co.za

3.3 Itheyibhile engezantsi ibonisa ushwankathelo lengeniso nenkcitho yonyakama.l

Ingeniso	**(R)**
Sale of crop products	470 000
Sale of livestock products	220 000
Government subsidy	50 000
Ingeniso iyonke	.....
Inkcitho	
Seed	23 500
Fertiliser	45 000
Feed	18 200
Processing	28 300
Marketing	12 000
Insurance	7 000
Depreciation	4 500
Inkcitho iyonke	.....
INethi inkham	.....

3.3.1 Chonga idotyhumenti ebonakaliswe ngasentla. (1)

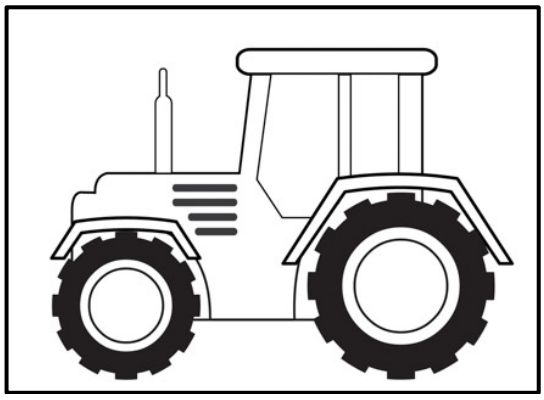
3.3.2 Khaltyhuleyitha inethi inkham yebhizinesi. (4)

3.3.3 Hlomla ngeprofithabhilithi yefama. (2)

3.3.4 Chonga iifixed cost zibeMBINI ezidweliswe kwidotyhumenti ngentla. (2)

3.3.5 Nika ibeMIBINI imisebenzi ebalulekileyo yokusetyenziswa kwe fayinenshiyal rekhodi ezifama. (2)

3.4 Umfanekiso ongezantsi ubonisa umzekelo wefam asethi.



3.4.1 Chaza ithem *asset*. (2)

3.4.2 Chonga uhlobo lwekhapitali emelwe yifam asethi eboniswe ngentla. (1)

3.4.3 Fumana uhlobo lwekhredithi esetyenziswa ukuxhasa ngemali iayithem eboniswe ngentla. (1)

Downloaded from www.studypapers.co.za

Find Plenty of Free Study Resources at www.studypapers.co.za

3.4.4 Cebisa ngeesosi zemali eziMBINI ezinokusetyenziswa ukuthenga iasethi engentla. (2)

3.4.5 Xela ifam rekhodi apho ungafumana iifam asethi ezinje ngale iboniswe ngentla zidwelisiwe. (1)

3.5 Ipheyini engezantsi ibonisa iifosi ezichaphazela iibhizinesi.

ethical; cash flow; legislation; workforce competence; droughts

3.5.1 Chonga zibeMBINI ii-inthenali fosi ezichaphazela iIbhizinesi. (2)

3.5.2 Zeziphi iifosi kwezingentla ezinokuphuculwa nge in-service training? (1)

3.6 Chonga imanagement skill efanelekileyo kwimeko nganye kwezi zilandelayo:

3.6.1 Ukubanakho ukudlelana ngempumelelo nezistakeholder ezahlukileyo nabasebenzi (1)

3.6.2 Ukugcina iirekhodi zefama (1)

[35]

Downloaded from www.studypapers.co.za

Find Plenty of Free Study Resources at www.studypapers.co.za

UMBUZO 4: IIBHEYISIKHI AGRIKHALTSHARALRAL JENETHIKHI

Qala lombuzo kwiphepha ELITSHA.

4.1 Hlalutya ijenethikhi khrosi engezantsi ze uphendule imibuzo elandelayo.

P_1	aaBB x AAbb			
Phenotype	Spotted and black	Solid and brown		
F_1 Genotype	**A**			
F_1 phenotype	All Solid and black			
P_2	AB	Ab	**V**	**X**
AB	AABB	AABb		
Ab	AABb	AAbb		
Y				
Z				

4.1.1 Thiya uhlobo lwekhrosi ebonakaliswe ngentla. (1)

4.1.2 Chonga iimpawu ezidominenti. (2)

4.1.3 Fumana igenotype **A**. (1)

4.1.4 Xela iMendelian law eyenzeka kuphela kwikhrosi engentla. (1)

4.1.5 Chonga iigamete **V**, **X**, **Y** no **Z** uzisebenzise ukuzoba iPunnet square eneoffspring ezi4. (4)

4.1.6 Fumana iphenotypic reyisho kaF_2 jenereyishini. (2)

4.2 Kwitapile, ubude besityalo bulawulwa zijini ezi3. Ilokhasi nganye ine edithivu ne nan-edithivu allele. Umthi onegenotype engu AABBCC ukhula ubengu 100 cm ubude, ngelixa onegenotype engu aabbcc ukhula ubengu 40 cm ubude.

4.2.1 Fumana igalelo le-edithivu allele nganye kubude besityalo. (2)

4.2.2 Ukuba ukhrosa u100 cm wesityalo no40 cm wesityalo ukufumana uF_1 jenereyishini. Iyakuba ngubani igenotype ka F_1 jenereyishini? (1)

4.2.3 Khaltyhuleyithi ubude besityalo esinegenotype ka AaBBCc. (3)

4.2.4 Hlela iimpawu ezoyanyaniswa nepolygenic inherithensi. (1)

Downloaded from www.studypapers.co.za

Find Plenty of Free Study Resources at www.studypapers.co.za

4.3 Choga imechanism yeinheritance esebenza kwinkcaza nganye kwezingezantsi.

4.3.1 I-ekspreshini yejini enye ichatshazelwa yi-eksipreshini ye independently inherited jinni enye okanye ezininzi. (1)

4.3.2 I-allele ezimbini zejini enye zibonakaliswe ngokwahlukeneyo ukuvelisa impawu ezohlukileyo ze individyuwali. (1)

4.3.3 Uhlobo lwejini intarekshini apho i-allele zombini zejini kwilocus zibonakaliswa ngokungaphelelanga zikhokhelele kwi intermediate phenotype. (1)

4.3.4 Indidi ezintathu okanye ngaphezulu zeejini ezihleli kwilocus enye. (1)

4.4 Inkuzi nemazi zikhwelene zazala amathokazi amabini u**A** no**B**. Nangona ioffspring zikhuliswe zagcinwa phantsi kwemeko ezimbini ezifanayo ithokazi **A** liyakhula kwaye liyeyona mazi iphambili ngokuvelisa ubisi ngelixa ithokazi **B** likhula livelisa ubisi njee. Ngoko ke umfama ukhetha u**A** ukuqhubeka nebridingi.

4.4.1 Chonga indlela ukhetho luchazwe ngayo kumhlathi ongentla. (1)

4.4.2 Xela izizathu eziBINI ezinokubakho zomahluko ekusebenzeni kwamathokazi enkomo (heifers). (2)

4.4.3 Xela imisebenzi emiBINI yokhetho ekuphuculeni izilwanyana. (2)

4.5 Chonga ibridingi sistim enxulunyaniswa nengxelo nganye kwezinikwe ngezantsi.

4.5.1 Izisa ijenethikh matheriyeli entsha kodwa engaphakathi kwemida yohlobo lwebridi. (1)

4.5.2 Isetyenziswa ukomeleza impawu ezifunekayo. (1)

4.5.3 Ivelisa ibridi ezintsha. (1)

4.5.4 Iprojeni ihlala izalana kakhulu kangangoko ne awuthistendingi ansesta. (1)

4.6 Ngezantsi zezinye zeephothenshiyali enviromentali riski ezinxulumaniswa nokusetyenziswa kweejenethikhali modifayidi oganizim. Chaza ngokufutshane ukuba ukusetyenziswa kweejenethikhali modifayidi oganizim kungakhokhelela njani kwiiriski ezinikwe kuMBUZO ngamnye ku4.6.1 ukuya kuMBUZO 4.6.2.

4.6.1 Idala ukhula oluresistenti kwihebhisayidi. (2)

4.6.2 Ungcoliseko lomhlaba namanzi. (2)

[35]

AWONKE KWICANDELO B: 105
AMANQAKU EWONKE: 150

Downloaded from www.studypapers.co.za