



# basic education

Department:  
Basic Education  
**REPUBLIC OF SOUTH AFRICA**

## **NATIONAL SENIOR CERTIFICATE**

**IGREYIDI 12**

**ISINDEBELE ILIMI LEKHAYA (HL)**

**IPHEPHA LOKUTHOMA (P1)**

**NOVEMBA 2016**

**IMITLOMELO: 70**

**ISIKHATHI: Ama-iri ama-2**

**Iphepheli linamakhasi ali-14.**

**YELELA**

1. Iphepheli LINEENGABA EZINTATHU: ISIGABA A, B kanye NESIGABA C.

ISIGABA A:	Ukufunda nokuzwisisa	(30)
ISIGABA B:	Ukurhunyeza	(10)
ISIGABA C:	Izakhi nemithetjhwana yokusetjenziswa kwelimi	(30)

2. Phendula YOKE imibuzo.
3. Thoma ISIGABA ESINYE NESINYE ekhasini ELITJHA.
4. Thalela ngemva kokuphendula imibuzo YESIGABA NGASINYE.
5. Tlola iinomboro zeempendulo zakho zifane patsi nangendlela ezinonjorwe ngayo ephepheni lemibuzo.
6. Tjhiya umuda OWODWA ngemva kwaleyo naleyo pendulo.
7. Yelela kobana upeleda amagama ngendlela efaneleko bewutlole nemitjho ezwakalako.
8. Isikhathi esiphakanyisweko sokutlola isigaba ngasinye:
- |            |                      |
|------------|----------------------|
| ISIGABA A: | Pheze imizuzu ema-50 |
| ISIGABA B: | Pheze imizuzu ema-30 |
| ISIGABA C: | Pheze imizuzu ema-40 |
9. Tlola kuhle nangesandla esibonakalako.

**ISIGABA A: UKUFUNDA NOKUZWISISA****UMBUZO 1**

Phendula imibuzo engaphasi kwetheksthi eku-1.1 nengaphasi kwesithombe esiku-1.2.

1.1 Funda itheksthi engenzasi bese uphendula imibuzo elandelako.

**ITHEKSTHI A****UKUNIKELA NGEENGAZI**

- 1 Nawunikela ngeengazi usuke upha isiguli into imali engeze yayithenga. Iingazi ezihlwengekileko zisindisa amaphilo wabantu. Qobe kulilanga bekungahlongakala iinkulungwana ngeenkulungwana zabantu nangathana abanye abantu bebanganikeli ngeengazi. Nawunikela ngeengazi usuke upha umuntu izipho ezintathu, okumasotja akhiqhiza iingazi ezibovu, ama-*plasma*, nama-*platelets*. Okudanisako kukobana nama-*platelets* atsengwa eengazini la abulungwa kwaphela amalanga ama-5 bese ngemva kwalokho akusakghonakali bona angafakelwa emuntwini owathlogako. 5
- 2 ISouth African National Blood Service ebizwa nge-SANBS ngokurhunyezweko, yihlangano engangenisi imali enikela ngeengazi ebantwini abazithlogako. Ilangano le ibuthelela iingazi ebantwini ebazinikela ngesihle bese izitjhugulula zibe sendleleni yokobana zilungele ukufakwa komunye umuntu ozithlogako. Abanikeli ngeengazi bayahlolwa ngaphambi kobana bangavunyelwa ukunganikela ngazo. Iingazi ziyatsengwa kukhutjwe izinto ezintathu ezibalwe ngehla okumasotja akhiqhiza iingazi ezibovu, ama-*plasma* nama-*platelets* bese nazidluliselwa kiloyo ozithlogako kutjhejwa bonyana utlhogani hlangana nezinto ezintathwezi ngaphambi kobana isiguli singafakelwa iingazi. 10
- 3 Akusizo zoke iingazi ezinikelwa ihlangano ye-SANBS ezisetjenziswako, khulukhulu zalabo bantu abathomako ukunikela ngombana kutlhogeka bona kulandelwe imilando yabantwabo, kukhutjwe okungakafaneli okuseengazini zabo ngaphambi kobana kufakelwe abantu abazithlogako. Ilangano le ithembele khulu ebantwini abanikela babuyelela ngombana bona sele banemiphumela eyanelisako nanyana emihle. 20
- 4 Ukuze ihlangano ye-SANBS ikghone ukujamelana nokufuneka kweengazi kufanele ibuthelele iingazi ezingaba mayunithi aziinkulungwana ezintathu ubuncani bakhona ngelanga. Ngokutjho kwehlangano le kuthiwa iyunithi elilodwa leengazi lingasindisa amaphilo wabantu abathathu kodwana okuliqiniso kukobana abanikeli ngeengazi ngendlela efaneleko bangaphasi kwe-1% enarheni yeSewula Afrika. Mhlana amalanga ali-14 ngenyanga kaMgwengweni qobe mnyaka lilanga lapha ihlangano le ikhuthaza woke umuntu bona anikele ngeengazi khulukhulu labo abathomako. Nanyana kunjalo kuthiwa abanikeli ngeengazi bakhonjelwa bona banikele ngeengazi qobe ngemva kwamalanga ama-56. 30

- 5 Abantu ababu-8 kwabali-10 bazokuthoga bona bafakelwe iingazi ebuphilweni babo. Kuze kube gadesi abantu abacabangi ngokunikela ngeengazi bekufike lapha kuba ngibo abazitlhogako. Umuntu onganikela ngeengazi ngiloyo oneminyaka engaphezu kweli-17, onobudisi obungaba makhilogremu ama-50 nongazange anikele ngeengazi emalangenani ama-56 adlulileko. 35
- 6 Ufanele ube mumuntu ophilileko, ongathayeli ngeengazi ngokwakho, ongathathi imitjhoga yokugula okuthileko nonganawo umulwana wentumbantonga. Abantu ekungasikade bavakatjhele eendaweni ezinobulwele bemalariya bakhuthazwa bona banganikeli ngeengazi. Ngaphambi kobana umuntu anganikela ngeengazi uyabuzwa ngendlela aziphatha ngayo nangobujamo bepilwakhe. Imibuzo le ibuzelwa ukuqinisekisa bona ubujamo bakhe bepilo bukulungele bona unganikela ngeengazi nokobana wena ngokwakho angeze wabasengozini na. 40 45
- 7 Ngaphambi kobana ungadoswa iingazi bakuhlaba ngenalidi emunweni ukuze bathole iingazana abazozihlola bona ukulungele ukunganikela ngeengazi na. Ngemva kwalokho kuhlolwa indlela ihliziywakho epompa ngayo iingazi nokobana awunangazi eziphezulu na. Umuntu anganikela ngeengazi ezimamiliitha ama-480 kanti umuntu yena ngokwakhe unesilinganiso seengazi esingaba malitha ama-5 emzimbenakhe ekuthi ekukhambeni kwesikhathi iingazezi zibuyele ezingeni lazo nanyana ezinye anikele ngazo. Ukunikela ngeengazi akusimraro njengombana abanye abantu bacabanga begodu akunakuthi umuntu angazifumana sele angenwe bulwele obuthileko ngombana anikele ngeengazi. Ukunikela ngeengazi lihlelo elilula elithatha imizuzu ema-30. Zoke iinalidi ezisetjenziswako zitja begodu zisetjenziswa kanye bese ziyahlwa. Nanyana kunjalo kusese nabantu abanganasiqiniseko bona ngiyiphi indlela esetjenziswako lokha umuntu nakanikela ngeengazi. 50 55 60
- 8 Ngokusabela ubungozi umuntu angahlangabezana nabo nakafakelwa iingazi zomunye umuntu, abanye abantu bakhetha ukuzinikelela bona iingazi nofana banikelelwe ziinini zabo nangabe uyazi bona uzokuyokuhlizwa. Abantu abangakafaneli bona bazinikelele bona ngokwabo iingazi ngabanobulwele behliziyo, bokuwa, bokuphelelwa mumoya, beswigiri, bekankere yananyana ngeyawuphi umhlobo nabanobulwele bokufa ihlangothi. Nangabe ucabanga ukuzinikelela ngeengazi ufanele uzilungiselele kusese nesikhathi ngaphambi kobana uyokuhlinzwa begodu udorhoderakho ufanele akutjele bona ungazinikelela ngeengazi ezingangani. Iyunithi yeengazi inganikelwa ngeenkxhathi ezihlukeneko ngamalanga angaba ma-4 ukuya kwali-7, okutjho bona nangabe kuzokuthogeka iingazi ezimayunithi ama-4 ungathoma ukuzinikela ngeengazi kusasele iimveke ezi-4 ngaphambi kobana ungayokuhlinzwa. Ukuzinikela kokugcina akukafaneli kube malanga ama-3 ukuya kwali-7 ngaphambi kobana ungayokuhlinzwa. 65 70
- 9 Akusikanengi abantu babone bona iingazi zabo ziyinto ebona bona baphile. Nangabe ubujamo bakho bezamaphilo bubuhle ulindeleke bona unikele ngeengazi okungasenani amahlandla ama-300 ebuphilweni bakho. 75

[Ithethwe ku-Inthanethi yatjhugululelwa esiNdebeleni]

- 1.1.1 Tlola isizathu ESISODWA esenza bona kube yinto eqakathekileko nefunekako bona woke umuntu anikele ngeengazi. (1)
- 1.1.2 Ngokutjho kwetheksthi le kuthiwa linani elingangani labantu elingasindiswa liyunithi elilodwa leengazi? (1)
- 1.1.3 Ngisiphi isizathu esenza bona iingazi zabantu abanikela kokuthoma zingasebenziseki lula? (2)
- 1.1.4 Tlola urhunyeze ihlelo elilandelwako ngaphambi kobana iingazi ezinikelweko zingafakelwa umuntu ozitlhogako. (2)
- 1.1.5 Madanisa phakathi kweengazi zomuntu othomako ukunikela ngazo nezomuntu onikela ngokubuyelela uqalise ekusetjenzisweni kwazo yihlangano ye-SANBS. (2)
- 1.1.6 Hlathulula ocabanga bona kumnqopho wehlangano yabakwa-SANBS ngokwenza okulandelako lokha umuntu nakanikela ngeengazi:
- (a) Ukuhlola umuntu ngaphambi kobana anganikela ngeengazi. (2)
- (b) Ukuhlolwa kweengazi ngokwazo ngemva kobana umuntu anikele ngazo. (2)
- 1.1.7 Ngokuya kwetheksthi engehla ucabanga bona kungebanga lani qobe kulilanga kube khona abantu abanikela ngeengazi nanyana kuthiwa umuntu oyedwa anganikela ngemva kwamalanga ama-56? Ipendulwakho ayibe liphuzu ELILODWA. (2)
- 1.1.8 Ucabanga bona ngibaphi abonobangela abangenza bona umuntu agcine sele azifumana atlhayeelwa ziingazi emzimbeni naphezu kobana amasotjakhe akhiqhiza iingazi asebenza ngokufaneleko? Tlola ubujamo OBUBILI. (2)
- 1.1.9 Kanengi abantu abanikela ngeengazi kuba makuwa ukudlula abantu abanzima. Ngokwazi kwakho ungathi uyini unobangela walokho? (2)
- 1.1.10 Coca ngabonobangela abenza ihlangano yabakwa-SANBS ingakghoni ukufakela umuntu ozitlhogako iingazi nanyana kutholakala bona zikhona iingazi ezinikelweko. (2)

1.2 Qalisisa iinthombe ezingenzasi bese uphendula imibuzo elandelako.

**ITHEKSTHI B**



[Zigugulwe ku-Inthanethi]

- 1.2.1 Tlola iinzathu EZIMBILI ezikatelela umuntu osesithombeni sesi-3 ukobana afake amadhavu. (2)
- 1.2.2 Rhunyeza ikambiso evezwa ziinthombe ezingehlezi ngomutjho OWODWA. (2)
- 1.2.3 Khetha ipendulo enembako bese uqedelela umutjho ongenzasi lo.
- Lokha umuntu nakazokunikela ngeengazi unikelwa isiselo njengombana kutjengisiwe esithombeni sesi-2. Lokho kwenzelwa ukobana ...
- A azizwe amukelekile.  
 B kubizwe abantu bona bazokunikela ngeengazi.  
 C odoswako angaphelelwa mamandla agcine awile.  
 D uyozithengela isiselwesi nawuqeda ukudoswa iingazi. (1)

- 1.2.4 Ucabanga bona kubayini esikhathini esinengi iingazi zidoswa emkhonweni? (1)
- 1.2.5 Isenzo sakadade ovezwe esithombeni sesi-3 sokubonisa ithabo lokha nakanikela ngeengazi sisitjelani ngodade lo? (2)
- 1.2.6 Ngokuqalisisa lokhu okwenzeka eenthombeni ezingehlezi ku-1.2 nokuzwisisa okukhulunywe etheksthini engehla ku-1.1. Ngikuphi ongakwenza ukukhuthaza abantu ukobana banikele ngeengazi ngobunengi? Ipendulwakho ayibe liphuzu ELILODWA. (2)

**IMITLOMELO YESIGABA A: 30**

**ISIGABA B: UKURHUNYEZA****UMBUZO 2**

Fundisisa itheksthi elandelako bese uyayirhunyeza ngokwemiyalo onikelwe yona.

**IMIYALO:**

1. Ngamagama angadluli kwama-70, rhunyeza ngendima uveze amaphuzu ongawalandela ukuze ukghone ukwenza imisebenzakho ngesikhathi.
2. Umutjho owutlolako endimeni awube nomqondo OWODWA opheleleko.
3. Tlola ngelimi elitsengileko ngombana uzokwabelwa imitlomelo emi-3
4. Sebenzisa amagamakho, ungabuyeleli utlole njengombana kutloliwe etheksthini ngombana uzokulahlekelwa imitlomelo.
5. Tlola inani lamagama owasebenzisileko ekupheleni kwesirhunyezo sakho.

**ITHEKSTHI C**

**IINDLELA UMUNTU ANGAZILANDELA UKUZE AKGHONE UKWENZA  
IMISEBENZAKHE NGESIKHATHI**

Uhlala ufika ngesikhathi lapha uya khona nofana kanengi ufika ngemva kwesikhathi? Izinto ozenzako uziqeda ngesikhathi osibekileko nofana obekelwe sona? Nangabe ulindeleke bona unikele utitjherakho umsebenzi othileko umnikela ngesikhathi nofana njani? Nawunikelwe umsebenzi wabekelwa nelanga lokobana uzowethula ingabe uyakghona ukusebenza bese kuthi nakufika ilangelo uwethule njengombana kulindelwe na? Ingabe umumuntu okghona ukulawula isikhathi sakho ngendlela efaneleko noyihlosileko? Nangabe ubunengi beempendulo zakho bo; 'Awa' kutjho khona bona awukghoni ukulawula isikhathi sakho ngendlela elindelekileko. 5

Ufanele uthome ngokutlama irhelo lemisebenzi yelanga elinye nelinye okumele uyenze ngaphambi kobana ilangelo lithome. Lokho ungakwenza ekuseni nofana ukwenze ngaphambi kobana ulale ukwenzelela bona nawuvukako sewunomtamo welangelo. 10

Ngaleyondlela awukazozithola sewuphapharerha ungazi bona uthome ngani begodu ugcine ngani. Zibekele isikhathi sokuqeda omunye nomunye umsebenzi oserhelweni lakho langelangelo. Lokho kuzokusiza bona ungoni isikhathi eside emsebenzini owodwa. 15

Sebenzisa ikhalenda ngombana lokho kuzokwenza bona ukghone ukulawula imisebenzakho yelanga nelanga. Kungaba ngcono nange ungasebenzisa umaliledininakho ukurhemisa imisebenzakho yelanga ukwenzela bona akghone ukukhumbuzwa. Qinisekisa bona amalanga wokugcina wemisebenzakho uwazi woke ukwenzela bona uzibekele isikhathi bona umsebenzi ngamunye uzimisele ukuwuqeda nini. Zifundise ukungavumeli ukuthatha yoke imisebenzi nanyana sele ubona bona le onayo seyanele. 20



Imisebenzakho irhemise pheze ngokufana kwayo ukwenzela bona kube lula ukwenza omunye nasele wenze omunye ngombana pheze iyakhambelana. Kuqakathekile bona uhlale uqala isikhathi ukwenzela bona umsebenzi owenzako ngalesosikhathi usese ngaphasi kwesikhathi ozibekela sona. Zimisele ukusebenza iinkhathi ezingezelelweko lokha ubona umsebenzi kwangathi uyakwehlula nanyana umnengi. 25

Khandela zoke izinto ezizokuba ziintjhihilo lokha nawenza umsebenzi. Umaliledininakho ungamcima ngombana nalokha nakacimileko uyakghona ukuthatha imilayezo. Kufanele ingqondwakho inamathele phezu kwalokho okwenzako ngalesosikhathi, njeke izinto ezifana nabomaliledinini, imirhatjho nokhunye kungakwenza bona ingqondwakho itjharagane, ugcine sele ucabanga izinto ezingakhambisani nalokho okwenzako. Ufanele uzinikele isikhathi sokuphumula ngaphambi kobana ungalulela komunye umsebenzi. 30

[Ikhutjwe ku-Inthanethi yatjhugululelwa esiNdebeleni]

**IMITLOMELO YESIGABA B: 10**

**ISIGABA C: IZAKHI NEMITHETJHWANA YOKUSETJENZISWA KWELIMI****UMBUZO 3: ISIKHANGISO**

Qalisisa isikhangiso esingenzasi bese uphendula imibuzo elandelako.

**ITHEKSTHI D****KWASIDLASOKE**

**UNOMNYANYA NANYANA ISILAHLO?  
YEWIZE UZOZIDOBHELA ISITJHEBO  
NGEENTENGO EZIPHASI, PHASI!**

**Imibandela:**

- linkomo, iimfarigi nezimvu zithengiselwa umuntu othenga zimbili ukuya phezulu bese iinkukhu zithengiswa ukuthoma kezilitjhumu.
- Asamukeli imali esandleni kodwana kubhadelwa ebulungelweni bese uza nesitlankana esibufakazi.
- Kukatelelekile bonyana sikuhlabele ngemva kokuthenga.

[Sithethwe ku-[www.images.com](http://www.images.com)]

3.1 Buyelela utlole umutjho ongenzasi kodwana ujamiselele igama elithalelweko ngesenzukuthi esinembako.

Yewize uzozidobhela isitjhebo ngeentengo eziphasi, phasi!

(1)

- 3.2 Tlola iinlungelelo zeempambosi EZIMBILI ezisetjenziswe esenzweni esithalelweko emutjhwani ongenzasi.  
linkomo, iimfarigi nezimvu zithengiselwa umuntu othenga zimbili ukuya phezulu. (2)
- 3.3 Tlola iinkhekhe zekulumo EZIMBILI ezisetjenziselwe ukwakha igama elilandelako:  
Kwasidlasoke (2)
- 3.4 Buyelela utlole umutjho ongenzasi lo kodwana uwutjhugulule uveze ubunengi.  
Unomnyanya nanyana isilahlo? (2)
- 3.5 Hlathulula umqondo omunyethwe ligama elithi, 'uzozidobhela' elisetjenziswe esikhangisweni esingehla. (1)
- 3.6 Vumelana nofana uphikisane nesitatimende esingenzasi bese usekela isiqunto osithathako ngokuqalisa kokubela esikhangisweni.  
Isikhangiswesi sizwakala sinamagama anebandlululo ebantwini abasese nekolelo yesintu. (2)

**[10]**

**UMBUZO 4: IKHATHUNI**

Qalisisa ikhathuni engenzasi bese uphendula imibuzo elandelako.

**ITHEKSTHI E**

[Ithethwe ku-Inthanethi yatjhugululelwa esiNdebeleni]

4.1 Buyelela utlole umutjho ongenzasi lo bese ujamiselela igama elithalelweko ngelimqondo ofana nalo.

Abantu sebaphendule ama-ofisi iindawo zokuzigedla.

(1)

4.2 Dzubhula amagama asetjenziswe ekhathunini engehla akhombisa ukudelela nofana ukunyaza.

(1)

4.3 Tlola bona isakhi esithalelweko emutjhwani ongenzasi sisetjenziselwa ukwenzani?

Shh!! Awuboni bona ngisese semtatweni?

(1)

4.4 Dzubhula igama elisetjenziswe ekhathunini engehla elinomqondo wokuncenga.

(1)

4.5 Khetha ipendulo enembako bese uqedelela umutjho ongenzasi lo.

Ubaba osekhathunini eku-A engehla le ubiza ubaba osekhathunini eku-B ngesinanazelo bekasebenzise nesakhi u-hle! ngombana ...

A amhlonipha.

B amlonga.

C amncenga.

D amkhuthaza.

(2)

4.6 Ingabe ikulumo ethi; 'Konje ninjalo nina bantu eningakafundi, aninahlonipho' iliqiniso nofana imbono. Sekela isiqu nto osithathako ngephuzu ELILODWA.

(2)

4.7 Dzubhula amagama asisaga asetjenziswe ekhathunini engehla uzakhele ngaso wakho umutjho kuvele bona uyayazi ipendulo yaso.

(2)

**[10]**

### UMBUZO 5

Funda itheksthi engenzasi bese uphendula imibuzo elandelako.

### ITHEKSTHI F

Nangabe usebenzisa umaliledinini sithemba bona uyalemuka bonyana kunemisetjenzana eminengi ongayenza ngaye. Kokuthoma ungathumela imilayezo ubuye ukhulume nomuntu loyo siqu sakhe. Inengi labantu alisayingeni yokubetha umtato likhulume nomuntu kodwana selithumela imilayezo liphume eendabeni.

Ngokungazazi inengi lemilayezo ethunyelwa ngama-SMS milayezo ethunyelwa batjhayeli begodu lokhu bakwenza lokha nabatjhayelako. Ingabe lokho kumbono eyingozi nanyana awa. Nanyana inengi labantu lisifa ngesenzwesi kodwana abantu bakubethela mthalazeni lokho. Kezinye iindawo uthola umhlambi weenkomo utjhayiswe yikoloyi uzibuze bona kwenzeke njani lokho. Nasele ufunisisa uthole bona umtjhayeli loyo bekakhuluma ngomaliledinini nanyana bekathumela umlayezo.

5

10

Isikwata sabantu esisebenzako asisawuqedi umsebenzi ngesimanga sokukhuluma ngabomaliledinini. Nemisebenzini ufumana abantu bahlezi ngaphasi kwemithi nanyana kweenthurhu bahlalele ukuthumela imilayezo ngabomaliledinini. Kesinye isikhathi uthi nawuthi mehlo suka ufumane isiqubuthu sabantu sikakamelele umaliledinini batjho sibukela abantu ababulanzi.

15

[Ithethwe kusikhethu sabafundi igreyidi le-12]

5.1 Tlola bona ibizo elithalelweko emutjhwani ngamunye kengenzasi le limhlobobani webizo.

5.1.1 Nangabe usebenzisa umaliledinini sithemba bona uyalemuka bona kunemisetjenzana eminengi ongayenza ngaye.

(1)

5.1.2 Kezinye iindawo uthola umhlambi weenkomo utjhayiswe yikoloyi uzibuze bona kwenzeke njani lokho.

(1)

- 5.2 Tlola umqondo omunyethwe sisakhi esithalelweko emutjhwani ongenzasi.  
Nangabe usebenzisa umaliledinini lemuka bona kunemisetjenzana eminengi ongayenza ngaye. (1)
- 5.3 Buyelela utlole umutjho ongenzasi bese utjhugulula isenzo esithalelweko kiwo siveze umqondo wokwenzayenza.  
Nasele ufunisisa uthola bona umtjhayeli loyo bekakhuluma ngomaliledinini nanyana bekathumela umlayezo. (1)
- 5.4 Buyelela utlole umutjho ongenzasi bese ujamiselela ibizo elithalelweko kiwo ngelinomqondo ofana nalo.  
Isikwata sabantu esisebenzako asisawuqedi umsebenzi ngesimanga sokukhuluma ngabomaliledinini. (1)
- 5.5 Buyelela utlole umutjho ongenzasi bese ujamiselela ibinzana lamagama athalelweko kiwo ngegama elilodwa.  
Inengi labantu alisayingeni yokubetha umtato likhulume nomuntu kodwana selithumela umlayezo liphume eendabeni. (1)
- 5.6 Ngokutjheja imithetho nemithetjhwana yokutlola nokupeledwa kwelimi lesiNdebele, lungisa okungakalungi emutjhwani ongenzasi.  
Ingabe lokho kumbono eyingozi nanyana awa (2)
- 5.7 Buyelela utlole umutjho ongenzasi lo bese ujamiselela isitjho esisetjenziswe kiwo ngalokho esikutjhoko nofana esikuhlathululako.  
Nanyana inengi labantu lisifa ngesenzwesi kodwana abantu bakubethela mthalazeni lokho. (2)

**[10]**

**IMITLOMELO YESIGABA C: 30**  
**INANI LOKE: 70**