



Province of the
EASTERN CAPE
EDUCATION

IBAKALA ELIPHAKATHI

IBANGA 6

NOVEMBA 2016

INZULULWAZI NETEKNOLOJI IMEMORANDAM

AMANQAKU: 80

Le memorandam inamaphepha ayi6.

ICANDELO A**UMBUZO 1**

- 1.1 C ✓ isekethi yombane (electric circuit).
- 1.2 C ✓ ikopolo inikezela umbane ngokulula (copper conducts electricity easily).
- 1.3 B ✓ I-alamu (Alarms)
- 1.4 C ✓ i-asteroid.
- 1.5 C ✓ 365¼ yeentsuku. (5 x 1) **[5]**

UMBUZO 2

- 2.1 B ✓ Fossil fuel
- 2.2 E ✓ Moon
- 2.3 F ✓ Telescope
- 2.4 G ✓ Battery
- 2.5 D ✓ Space Rover (5 x 1) **[5]**

UMBUZO 3

- 3.1 likhomponethi (Components) ✓
- 3.2 lisimboli (Symbols) ✓
- 3.3 Turbine ✓
- 3.4 Ijenereyitha (Generator) ✓
- 3.5 UNozantya/ IMetyhuri (Mercury) ✓ (5 x 1) **[5]**

AMANQAKU EWONKE ECANDELO A: 15

ICANDELO B**UMBUZO 4**

- 4.1 Iswitshi (Switch) ✓ (1)
- 4.2 Ikhondaktha/ isinikezeli sombane (Conductor) ✓ (1)
- 4.3 Ihydroelectric power ✓ (1)
- 4.4 Pylon ✓ (1)
- 4.5 Rotation ✓ (1)

[5]**UMBUZO 5**

- 5.1 Zintathu (Three) ✓ (1)
- 5.2 Ukunika i-eneji efakwayo (input energy). ✓ (1)
- 5.3 Ewe ✓ (1)
- 5.4 Ibhalbhu (Light bulb). ✓ (1)
- 5.5 Hayi ✓
Iswitshi ivulekile. ✓✓ (3)
- 5.6 • Bayayazi ukuba zeziphi iikhomponethi abazifunayo kwisekethi. ✓
• Bayayazi ukuba iikhomponethi zimenjani kwisekethi. ✓
**(Nayiphi enye kwezi okanye nayiphi enye impendulo echanekileyo
yamkelekileAny one or any o)** (2)

[9]**UMBUZO 6**

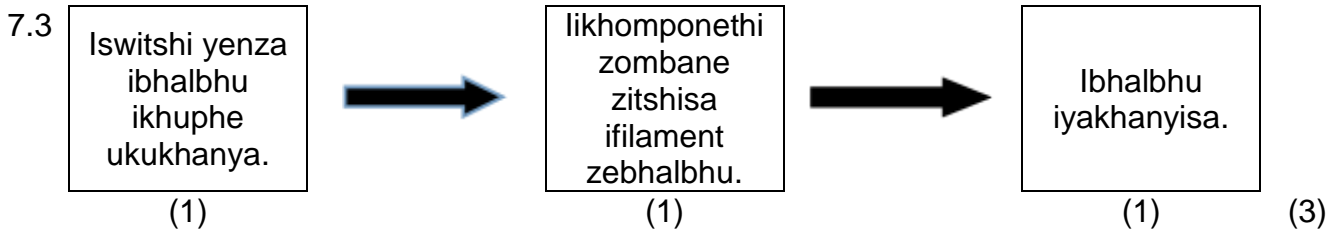
- 6.1 Izinikezeli zombane/Conductors: linqekembe zemali ✓ Inkonxa yesiselo ✓
(Naziphi 2 x 1)(2)
Izigqumi/insulators: Ibholipeni ✓ Imagi/Iglasi ✓ Irabha yokucima ✓
(Naziphi 2 x 1)(2) (4)
- 6.2 Izinikezeli zombane zenziwe ngemethali (metal). ✓
Izigqumi zenziwe ngezinto ezingeyomethali (non-metals). ✓ (2)
- 6.3 Iglasi yebhalbhu sisigqumi (insulator). ✓ (1)

[7]

UMBUZO 7

7.1 **Input:** Iswitshi ivula iTV. ✓
Process: likhomponethi zombane zenza ubuso beTV busebenze. ✓
Output: Imifanekiso iyavele kubuso beTV. ✓ (3)

7.2 Imoto yokudlala yombane ✓ Isango lombane ✓ Ifeni (fan) ✓ (Naziphi 1 x 1) (1)



7.4  (1)

- 7.5
- Iswitshi ibivulekile. ✓
 - likhomponethi bezingadityaniswanga kakuhle. ✓
 - Ibhetri ibingenamandla aneleyo (flat). ✓
 - I buzzer ibingasebenzi. ✓
- (Nayiphi enye impendulo echanekileyo yamkelekile)** (2)

[10]**UMBUZO 8**

8.1 Cima izikhanyisi xa zingasetyenziswa. ✓
 Cima igiza xa kungafuneki manzi ashushu. ✓
(limpendulo zabafundi zingohlukana) (2)

8.2 8.2.1 Imithombo ye-eneji ehlaziyekayo (Renewable energy sources) azinakusetyenziswa. ✓ (1)

8.2.2 Imithombo ye-eneji engahlaziyekiyo (Non-renewable energy sources) ayiphindi ibekho yakusetyenziswa. ✓ (1)

8.3 8.3.1

UDIDI LWE APPLIANCE	WATTAGES	
Isibane	70 W	(1)
Unomathotholo	14 W	(1)
I-ayini	600 W	(1)
Hairdryer	550 W	(1)

Mention 4 (4 x 1) (4)

8.3.2 lididi ezahlukeneyo zee appliances zisebenzisa amandla e-eneji awohlukeneyo.
(limpendulo zabafundi zingohluka) (2)

8.3.3 Ingenza umlilo. ✓
 Ingabulala abantu. ✓
(Nayiphi impendulo echanekileyo yamkelekile.) (2)

[12]

UMBUZO 9

9.1 Igxilimbela zegesi (Gas giants) zi:

- Zinkulu kakhulu ✓
- Zikude le eLangeni ✓
- Zenziwe ngegese namatye ✓

(3)

9.2 9.2.1 Elinye icala loMhlaba limnyama (dark) ✓
(Nayiphi impendulo echanekileyo yamkelekile.)

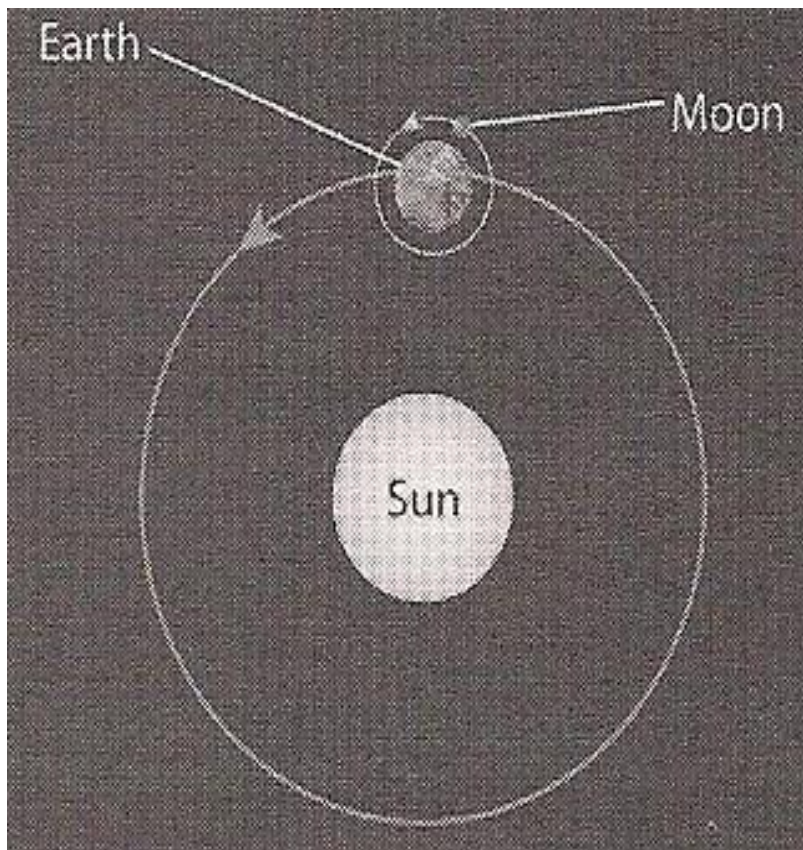
(1)

9.2.2 Akukho mitha yelanga iwela kulo. ✓

(1)

9.2.3 I-India yilendawo imnyama, kusebusuku khona ✓✓

(2)

[7]**UMBUZO 10****AMANQAKU ANIKEZELWE NGOLU HLOBO:**

- ILanga nokuleybhelisha
- UMhlaba nokuleybhelisha
- INyanga nokuleybhelisha
- I-obhiti yoMhlaba neentolo ezikhobisayo
- I-obhiti yeNyanga neentolo ezikhombisa
- Ucoceko

(1)

(1)

(1)

(1)

(1)

(1)

[6]

UMBUZO 11

- 11.1 SKA Square Kilometer Array ✓
 KAT Karoo Array Telescope ✓
 SALT Southern African Large Telescope/Isibonakude esikhulu saseMazantsi Afrika ✓ (3)
- 11.2 Esi sakhwiwo sakhethwa ngenxa yophahla lwaso esikwaziyo ukubona izinto eziluzizi kakhulu, nangokukwazi ukuqokelela ukukhanya nakweziphi imeko zemo yezulu. ✓✓ (1)

[4]**UMBUZO 12**

- 12.1
- Amavili awenziwe ngewire mesh. ✓
 - I-electric motor yokuqhuba ivili ngalinye. ✓
 - Iikamera zokuthatha iifoto. ✓
 - Iipaneli zesola zokutshajisa iibhetri. ✓
 - Ingalo yemekhenikhi yokugcola iisempuli. ✓
- (Naziphi iimpindulo ezimbini ezichanekileyo zamkelekile)** (Naziphi 2 x 1) (2)
- 12.2 12.2.1 IiMoon rovers nee Mars rovers ziyafana ngoba ...
- Zinamavili nee-axles. ✓
 - Amavili azo ajika nakweliphi icala. ✓
 - Zinikwa amandla zipaneli zesola neebhetri. ✓
 - Zizimoto. ✓
- (Naziphi 2 x 1) (2)
- 12.2.2 IiMoon rovers nee Mars rovers azifani ngoba ...
- IiMoon Rovers zihamba kwisafeyisi (surface) yeNyanga. IiMars Rovers zihamba kwisafeyisi (surface) kaMbomvane (Mars). ✓
 - IiMoon Rovers zidla ngokuqhutywa ngabantu abafunda ngeenkwenkwezi (astronauts). IiMars Rovers zilulekwa ngeerobhoti. ✓
- (Naziphi impindulo echanekileyo yamkelekile)** (1)

[5]**AMANQAKU EWONKE WECANDELO B: 65****AMANQAKU APHELELEYO EWONKE: 80**