



Province of the
EASTERN CAPE
EDUCATION

**NATIONAL
SENIOR CERTIFICATE**

GRADE 12

SEPTEMBER 2011

**GEOGRAPHY P2
MEMORANDUM**

NAME: _____

MARKS: 100

This memorandum consists of 4 pages.

SECTION A**QUESTION 1: MULTIPLE-CHOICE QUESTIONS**

- 1.1 C✓✓ latitude.
 1.2 B✓✓ 2629 AA.
 1.3 C✓✓ 25°53'30"S 29°13'44"E.
 1.4 D✓✓ an aerial photo with contours superimposed on it.
 1.5 A✓✓ 45°.
 1.6 C✓✓ industrial zone.
 1.7 B✓✓ slimes dam.
 1.8 C✓✓ wind pumps.
 1.9 B✓✓ town.
 1.10 D✓✓ rural-urban fringe.

(10x2) (20)

TOTAL SECTION A: 20**SECTION B****QUESTION 2: MAPWORK TECHNIQUES AND CALCULATIONS**

2.1 $\text{Gradiënt} = \frac{\text{VI}}{\text{HE}} \checkmark \frac{(\text{Vertical Interval})}{(\text{Horizontal Equivalent})}$
 $\text{VI} = 1\,608,5 - 1\,560 \text{ m} = 48,5 \text{ m} \checkmark$
 $\text{HE} = 5,4 \checkmark \times 100 = 540 \text{ m} \checkmark$
 $= \frac{48,5 \text{ m}}{540 \text{ m}} \checkmark$
 $= 1:11,1 \text{ (Range 1:10 – 1:12)} \checkmark$ (5)

2.2 $\text{DISTANCE} = \frac{24 \text{ cm} \times 50\,000 \text{ cm}}{100\,000 \text{ cm}} = 12,0 \text{ km} \checkmark$
 $\text{Time} = \frac{\text{Distance} \checkmark}{\text{Speed}} = \frac{12,0 \text{ km} \checkmark}{80 \text{ km/h}} = \frac{12,0 \text{ km} \times 60 \checkmark}{80} = 9 \text{ or } 9'00''/9 \text{ min } 0 \text{ sec} \checkmark \checkmark$ (6)

2.3 $\text{VE} = \frac{\text{VS}}{\text{HS}} \checkmark$ $\text{VE} = \frac{\text{VS}}{\text{HS}} \checkmark$
 $= \frac{1}{\frac{30}{1}} \checkmark$ $= \frac{1}{\frac{3\,000}{1}} \checkmark$
 $= \frac{1}{500} \checkmark$ $= \frac{1}{50\,000} \checkmark$
 $= \frac{1}{30} \times \frac{500}{1} \checkmark$ $= \frac{1}{3\,000} \times \frac{50\,000}{1} \checkmark$
 $= 16,7 \text{ times} \checkmark$ $= 16,7 \text{ times} \checkmark$
 $\text{VS} = 1 \text{ cm} : 30 \text{ m} \checkmark$ $\text{VS} = 1 \text{ cm} : 30 \text{ m (1 cm : 3\,000 cm)} \checkmark$
 $\text{HS} = 1 \text{ cm} : 500 \text{ m}$ $\text{HS} = 1 \text{ cm} : 50\,000 \text{ cm}$ (5)

2.4 $\text{Distance E to B} = 12,3 \text{ cm} \times 10\,000 \checkmark$ **Or** $12,3 \text{ cm} / 10 \checkmark$
 $= 123\,000 \text{ cm} \checkmark$ $= 1,23 \text{ km} \checkmark$
 $= 123\,000 / 100 = 1\,230 \text{ m} \checkmark \checkmark$ $= 1,23 \times 1\,000 = 1\,230 \text{ m} \checkmark \checkmark$ (4)

TOTAL SECTION B: 20

SECTION C**QUESTION 3: MAP INTERPRETATION AND ANALYSIS**

- 3.1 3.1.1 Coal mining/Open cast mining (2)
- 3.1.2 Open cast mining (2) Mine dumps (2) Excavations/Diggings (2)
Shafts (2) Slime dams (2) Sinkholes (2) Destruction of Fauna and
Flora (2) Biodiversity destroyed (2) Habitat lost (2) (Any 2x2) (4)
- 3.1.3 Open cast mining (2) Mine dumps (2) Excavations/Diggings (2)
Shafts (2) Slime dams (2) Sinkholes (2) Destruction of Fauna and
Flora (2) Biodiversity destroyed (2) Habitat lost (2) (Any 2x2) (4)
- 3.1.4 Subsiding ground (2) Infertile soil (2) Mine dump (2) Old mine (2)
(Any 2x2) (4)
- 3.1.5 Ferrobank (2) Subsiding soil (2) Old mine (2) Diggings (2)
Sinkhole (2) (Any 1x2) (2)
- 3.2 3.2.1 Dispersed (2) Isolated (2) (Any 1x2) (2)
- 3.2.2 Fertile soil (2) Rich alluvial soil (2) Flat land (2) Water supply(2) Use
of machines (2) Access to transport (2) (Any 2x2) (4)
- 3.3 I School (2) (1x2) (2)
- C Golf course (2) (1x2) (2)
- 3.4 Greenbelt (2) (2)
- 3.5 Absorb CO₂ (2)
They supply O₂ (2)
For beauty (2)
Reduce erosion (2)
Protect buildings against strong winds (2)
They stop expansion of urban areas (2)
Provide habitat for certain wild life species (2)
Reduce urban T°C (2)
Provide people with shade (2) (Any 1x2) (2)
- 3.6 Good transport network (road/rail) (2)
Flat land for expansion (2)
Cheaper land away from city centre (2)
Away from built up area – less threat of pollution (2)
Good labour supply from the surrounding residential areas (2) (Any 3x2) (6)

3.7	Street pattern	= (Planned) irregular	(2)	
		Free pattern	(2)	
	Advantage	= Free flow of traffic	(2)	
		Avoid steep roads	(2)	
		Not boring	(2)	
		Increase land value	(2)	
		Aesthetic	(2)	
		Less accidents	(2)	
		Cost effective	(2)	(Any 2x2) (4)

TOTAL SECTION C: 40

SECTION D

QUESTION 4: GEOGRAPHICAL INFORMATION SYSTEMS (GIS)

4.1	4.1.1	Computer based technology and method for collecting, analyzing, managing, modeling and presenting geographical data for a wide range of uses.(2)	(Concept 1x2)	(2)
	4.1.2	Gathering of information about the earth with any instrument from outer space.(2)	(Concept 1x2)	(2)
4.2		<i>Spatial</i> data: data that is linked to a specific location.(2)	(1x2)	
		<i>Attribute</i> data: data that expresses number of qualities and characteristics of spatial data.(2)	(1x2)	
4.3		Houses and buildings (2) Parks (2) Dams (2) Any point or area symbol on the map (2)	(Any 2x2 – Accept others)	(4)
4.4		Maps (2) Images (2) Tables (electronic spreadsheets) (2) Statistics (2) Information (2)	(Any 2x2)	(4)
4.5		Area around hospital (2) Grounds (2) Passages/Corridors (2) Point of entrance (2) Walkways (2)	(Any 2x2)	(4)
		(Any relevant answers)		

TOTAL SECTION D: 20

GRAND TOTAL: 100