



# education

Department:  
Education  
North West Provincial Government  
**REPUBLIC OF SOUTH AFRICA**

## PROVINCIAL ASSESSMENT

**GRADE 10**

**GEOGRAPHY**

**JUNE 2024**

**MARKING GUIDELINES**

**MARKS: 150**

These marking guidelines consist of 8 pages.



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**SECTION A**  
**QUESTION 1**

1.1.

1.1.1 B (1)

1.1.2 C (1)

1.1.3 D (1)

1.1.4 A (1)

1.1.5 D (1)

1.1.6 A (1)

1.1.7 B (1)

1.1.8 C (1)

(8 x 1) (8)

1.2.

1.2.1 Humidity (1)

1.2.2 Evaporation (1)

1.2.3 Condensation (1)

1.2.4 Precipitation (1)

1.2.5 Dew point (1)

1.2.6 Clouds (1)

1.2.7 Relative humidity (1)

(7 x 1) (7)

1.3

1.3.1 Ozone depletion is the destruction of ozone so that a hole form in the ozone layer.  
(Concept) (2) (1 x 2) (2)

1.3.2 Stratosphere (1) (1 x 1) (1)

1.3.3 Overgrazing (1)  
Deforestation (1)  
CFC's (1)  
**(ANY TWO)** (2 x 1) (2)

1.3.4 It may cause skin cancer (1)  
Eye cataracts (1)  
Lowering of immune system, resulting in increased illness in people & animals (1)  
Increase in the incidence of malaria (1)  
**(ANY TWO)** (2 x 1) (2)

1.3.5 People should try to use products labelled "ozone friendly" (2)  
The Montreal Protocol is seen as one of the most successful attempts at  
reducing the effects of ozone depletion (2)  
All CFCs should be replaced (2)  
Plant more trees (2)  
Use public transport (2)  
Educational awareness programmes (2)  
**(ANY FOUR)** (4 x 2) (8)

## 1.4

- 1.4.1 Longitudinal position (1) (1 x 1) (1)
- 1.4.2 Role of ocean current (1) (1 x 1) (1)
- 1.4.3 Distance from the sea (1)  
Aspect (1)  
Altitude (1)  
**(ANY ONE)** (1 x 1) (1)
- 1.4.4 Air is more heated at (b) because the sun's rays strike directly there. Heat is concentrated on a small surface area (2)  
Solar energy travels through smaller volume of atmosphere therefore less scattering, absorption and scattering (2) (2 x 2) (4)
- 1.4.5 Far from the moderating effect of the oceans (2)  
Climate characterised by hot summers and cold winters. (2) (2 x 2) (4)
- 1.4.5 The temperature of these two ocean currents that flows past these two towns are different, on the east coast the Warm Mozambique current flows past Durban and cold Benguela current on the west coast (2)  
Rainfall depends on the amount of moisture in the atmosphere so air on the eastern side is moist and high probability of rainfall than the western side (2)  
Air on the West coast is cold and dry, so chances of rainfall are low (2)  
(3 x 2) (6)
- 1.5
- 1.5.1 Summer (1) (1 x 1) (1)
- 1.5.2 North West (1) (1 x 1) (1)
- 1.5.3 (a) Cumulonimbus cloud (1) (1 x 1) (1)
- 1.5.3 (b) Heavy rainfall (1)  
Hailstorms (1)  
Lighting (1)  
Thunderstorms (1)  
Cloudy conditions (1)  
**(ANY TWO)** (2 x 1) (2)
- 1.5.4 Rainfall leads to faster growing plant/ grazing (2)  
There will be enough water for livestock (2)  
**(ANY ONE)** (1 x 2) (2)
- 1.5.5. Heavy rainfall may cause floods (2)  
Floods cause erosion of soil erosion (2)  
Heavy rainfall destroys natural vegetation (2)  
Heavy rainfall destroys natural habitats of animal/ ecosystems (2)

Hurt animal (2)  
Lighting can burn vegetation (2)  
**(Any THREE)**

(3 X 2) (6)

## QUESTION 2

### 2.1

- 2.1.1 Alfred Wegener (1)
- 2.1.2 Pangaea (1)
- 2.1.3 Laurasia (1)
- 2.1.4 Gondwanaland (1)
- 2.1.5 same (1)
- 2.1.6 tectonic plates (1)
- 2.1.7 still (1)

(7 x 1) (7)

### 2.2

- 2.2.1 F (1)
- 2.2.2 D (1)
- 2.2.3 A- Sill (1)  
B- Volcano (1)  
C- Dyke (1)
- 2.2.4 magma (1)
- 2.2.5 G (1)
- 2.2.6 Erosion of top soil (1)

(8 x 1) (8)

### 2.3

- 2.3.1 A – Crust (1)  
B – Mantle (1)
- 2.3.2 Igneous rocks (1)  
Sedimentary rocks (1)  
Metamorphic rocks (1)  
**(ANY ONE)**

(2 x 1) (2)

(1 x 1) (1)

### 2.3.3

#### **Uses of igneous rocks**

Contains valuable metals such as copper, gold, iron and manganese (2)  
Mining activities can take place to generate income (2)  
Provides building materials (2)  
Can be used to make tombstones (2)

#### **Uses of Sedimentary rocks**

Used to make cements (2)  
Can be used for building materials (2)  
Can be used to make tiles and bricks (2)  
Can be used to make statues and sculptures (2)

#### **Uses of metamorphic rocks**

Used for roofs and garden paths (2)

Used in road construction (2)

Minerals are found in this rock for beautification and sculptures (2)

**(Any TWO)**

(2 x 2) (4)

2.3.4

Sial is the upper layer of the earth (continental crust), made up of silica and aluminium (2)

Sima is the lower layer of the earth (oceanic crust), made up of silica and magnesium (2)

(2 x 2) (4)

2.3.5

**Crust**

It is the solid outermost portion of the earth and is typically 8 to 40 kilometres thick. (2)

Its nature is brittle. (2)

The crust makes up about 5% of the earth's mass and almost 1% of its volume. (2)

Oceanic and continental regions have different crustal thicknesses. (2)

The oceanic crust is 5 km thinner. (2)

The thickness of continental crust about 30 kms. (2)

Crust composes of Silica (Si) and aluminium (Al). (2)

The crust's components have an average density of 3 g/cm<sup>3</sup>. (2)

**(ANY TWO)**

(2 x 2) (4)

2.4

2.4.1

Undersea earthquake (1)

(1 x 1) (1)

2.4.2

**Focus:** Place inside the earth's crust where the earthquake originates (Concept) (2)

**Epicentre:** The point on the earth's surface directly above the focus (Concept) (2)

(2 x 2) (4)

2.4.3

Result of an earthquake below or near the ocean floor that cause the ocean floor to suddenly rise or fall. (2)

A wave forms that radiate outward in all directions away from the source. (2)

(2 x 2) (4)

2.4.4

Provide them with shelter/food/ clean water (2)

Medical personal must be sent to affected areas (2)

Emergency personal must be sent to affected areas. (2)

Give affected people money to start their lives again (2)

Build houses on higher ground (2)

Build specially strengthened buildings (2)

Educate people (2)

Having disaster supplies on hand (2)

Early warning systems must be in place (2)

**(ANY THREE)**

(3 x 2) (6)

2.5

2.5.1 Volcanism is the eruption of molten rock from inside the earth to the surface.  
(Concept) (2) (1 x 2) (2)

2.5.2 347 people (1) (1 x 1) (1)

2.5.3 Active (1)  
Ring of fire (1) (2 x 1) (2)

2.5.4 People can become ill because of breathing ash. (2) (1 x 2) (2)

2.5.5 **Negative effects of volcano**

Lava flows burn and bury vegetation and buildings (2)

Earth movements associated with a volcano can set off mudslides (2)

Harden lava can injure or kill people (2)

**Positive effects of volcano**

Volcanic ash can act as a fertiliser for soil (2)

Volcanic regions such as Hawaii become tourist attractions (2)

Underground water in volcanic regions is hot enough to  
use for heating systems and electricity generation (2)

**(ANY FOUR) – (Must refer to both)** (4 x 2) (8)  
**(60)**

### QUESTION 3

3.1

3.1.1 C (1) (1 X 1) (1)

3.1.2 D (1) (1 X 1) (1)

3.1.3 A (1) (1 X 1) (1)

3.1.4 128° (1)/ SE (1) (2 X 1) (2)

3.1.5 (a) Difference in years: 2024 – 2009 = 15 (1) years

(b) Mean annual change: 7' (1) Westwards

(c) Total change: 15 x 7' W = 105' W or 1° 45' (1) W

(d) magnetic declination for 2024: 25 ° 07' W +(1) 1° 45' =  
26 ° 52' West of True North

(5 x 1) (5)  
**[10]**

## 3.2

- 3.2.1 a) 786,9 m (1)
- 3.2.1 b) 1088 m (1)
- 3.2.1 c) 1315,6 m (1) (3 x 1) (3)
- 3.2.2 Golf (1) (1 x 1) (1)
- 3.2.3 Concave (1) (1 x 1) (1)
- 3.2.4 Contours are close towards each other at the top and apart at the bottom of the slope (2) (1 x 2) (2)
- 3.2.5 Presence of non- perennial rivers (1) /  
Reservoirs (1)/ Wind pumps (1)/ Dams (1) Furrows (1)  
**(ANY TWO)** (2 x 1) (2)
- 3.2.6 Yes (1) (1 x 1) (1)
- 3.2.7 It is part of the Camdeboo National Park that is bounded  
by a green border (2)  
Conservation is a priority in this area. (2)  
**(ANY ONE)** (1 x 2) (2)  
**[12]**

## 3.3

- 3.3.1 Remote sensing Collecting or gathering or capturing information about the earth from a distance without physical contact (Concept) (2) (1 x 2) (2)
- 3.3.2 Data (1) (1 x 1) (1)
- 3.3.3 mouse (1)  
Printer (1)  
hard drive (1)  
keyboard (1)  
monitor (1)  
scanner (1)  
digitiser (1)  
cables (1)  
CPU (1)  
**(ANY ONE)** (1 x 1) (1)

3.3.4 Topographical map consist of point, line and polygon symbols (2) (1 x 2) (2)

3.3.5 **Point:** School (1)

Church (1)

**(ANY ONE)**

(1 x 1) (1)

**POLYGON:** Recreational areas (1)

built-up area (1)

**(ANY ONE)**

(1 x 1) (1)

**TOTAL SECTION B:** [8]  
**30**

**GRAND TOTAL:** 150