UTHUKELA DISTRICT

GRADE 10

GEOGRAPHY

JUNE EXAMINATION 2026

MEMORANDUM

Stanmorephysics.com

SECTION A: PHYSICAL GEOGRAPHY

QUESTION 1

1.1

1.1.1 X (1)
1.1.2 X (1)
1.1.3 Y (1)
1.1.4 X (1)
1.1.5 Y (1)
1.1.6 Y (1)
1.1.7 X (1)



1.2

1.2.1 C (1)
1.2.2 B (1)
1.2.3 D (1)
1.2.4 D (1)
1.2.5 B (1)
1.2.6 B (1)
1.2.7 A (1)
1.2.8 B (1)

1.3

1.3.1 Trapping of heat near the earth surface by substances known as greenhouse gases. (2)

1.3.2 (a) Carbon monoxide (1)
(b) Methane/ Carbon dioxide (1)

1.3.3 It is experiencing very high temperatures (2)

1.3.4 The more greenhouse gases are trapped by greenhouse effect (2) the higher average increase in global temperatures of the earth. (2)

1.3.5 Increased average global temperatures will melt ice caps causing coastal flooding and soil erosion. (2)

Increased average global temperatures will result in climate change. (2)

Increased average global temperatures can disturb the ecosystems and biodiversity. (2)

Increased average global temperatures will destroy vegetation. (2)

Increase in average global temperatures are unbearable to some species. Eg polar bears. (2)

(ANY TWO)

1.3.6 Rewards and incentives for reducing carbon emissions (2)

Carbon taxes (2)

Recycling, as manufacturing new products emits more greenhouse gases (2)

Using of environmentally friendly sources of energy e.g. solar power, wind power, etc. (2)

Planting more trees and conserving forest (2)

Educating people on ways to reduce their carbon footprint (2)

Use of public transport to reduce the release of burning fuel (2)

Use of electric cars to reduce emission of carbon (2)

Impose fines for deforestation (2) (2 x 2) (4)

(ANY TWO)

1.4

1.4.1 **A-** Orographic/Relief (1)

B- Cyclonic/Frontal (1)

1.4.2 **A-** Mountain (1)

B- Frontal conditions (1)

1.4.3 Windward (1)

1.4.4 Soft, continuous rain over a wide area (2)

1.4.5 Orographic rainfall occurs when warm, moist air blows off the ocean onto the mountain (2)

The warm, moist air is then forced to rise by the mountain (2)

As the warm air rises, it cools and condenses (2)

Clouds are formed and it rains on the windward side **(A)** of the mountain. (2)

1.5

1.5.1 Line on the map joining places with the same atmospheric pressure.(2)

1.5.2 Winter (1)

1.5.3 Kalahari/ high pressure cell in the interior (1)

Clear skies in the interior (1)

Lower air temperatures (1)

(ANY TWO)

1.5.4 4 hpa (2)

1.5.5 High pressure cell

1.5.6 Cape Town (1), (3)

1.5.7 Cloud cover is overcast (2)

1.5.8 a) 29ºC (1)

b) 1ºC (1)

c) Clear skies (1)

d) North west(1)

e) 15 knots (1) (5 x 1) (5)

Stanmorephysics.com

QUESTION 2

2.1

2.1.1 Mantle (1)

2.1.2 Crust (1)

2.1.3 Inner core (1)

2.1.4 Outer core (1)

Stanmorephysics.com

2.1.5 Crust (1)

2.1.6 Mantle (1)

2.1.7 Crust (1)

2.2

2.2.1 A (1)

2.2.2 B (1)

2.2.3 C (1)

2.2.4 C (1)

2.2.5 A (1)

2.2.6 B (1)

2.2.7 A (1)

2.2.8 C (1)

2.3



2.3.1 Eruptions are evident (1)

2.3.2 Symmetrical shape (1)

Very steep sides (1)

Alternative layers of lava flow (1)

2.3.3 **A**-Side vent

B-Crater

2.3.4 **C**-Lava

D-Magma

2.3.5 **ADVANTAGES:**

Materials produce fertile soils. (2)

Ash and cinder are natural fertilizers as they are rich in minerals. (2)

As lava cools and is eroded by elements it also adds to soil fertility. (2)

Creates beautiful landscapes that promote tourism. (2)

Mineral deposits. (2)

DISADVANTAGES:

Destroys infrastructure. (2)

Harmful gases that destroy crops. (2)

Lava heat promotes global warming which causes drought and floods. (2)

Lava flow destroys crops and livestock. (2)

Lava flows cause wild fires which burn forests. (2)

Lava flow is dangerous to humans which reduces tourism. (2)

2.4

2.4.1 The vibration or shaking of the earth's crust (2)

2.4.2 2 people. (1)

2.4.3 Plate movement (2)

2.4.4 Isoseismal lines (1)

2.2.5 6.5 (1)

2.2.6 High number of deaths and injuries (2)

Power failure which leads to power outage (2)

Destruction of houses which leads to homeless people (2)

Damage of water pipes which leads to lack of clean water (2)

Destruction of roads which leads to areas being inaccessible (2)

Disruption of telecommunication for reporting of damages (2)

(ANY FOUR) (4 x 2) (8)

Stanmorephysics.com

2.5

2.5.1 Continental drift (1)

2.5.2 Pangaea (2)

2.5.3 Divergent plate boundary occurs when tectonic plates are moving away from each other (2) whereas convergent plate boundary occurs when tectonic plates are moving towards each other (2)

2.5.4 Identical rocks, of the same type and age, are found on both sides of the Atlantic Ocean. Mountain ranges with the same rock types, structures, and ages are now on opposite sides of the Atlantic Ocean (2)

Stanmorephysics.com

Ancient fossils of the same species of extinct plants and animals are found in rocks of the same age but are on continents that are now widely separated. (2)

Grooves and rock deposits left by ancient glaciers are found today on different continents very close to the equator. (2)

Coral reefs and coal-forming swamps are found in tropical and subtropical environments, but ancient coal seams and coral reefs are found in locations where it is much too cold today. (2)

Africa and South America appeared to fit like puzzle pieces.(2)

(ANY THREE)

2.5.5 The movement of plate is caused by convection currents in the mantle, which drag along the overlaying crust (2)
Plates rest on top of the underlying mantle (2)
Heat generates convection currents in the mantle (2)
Plates move along convection currents that are created (2)
Plates move away from each other or towards each other (2)
(ANY TWO)

SECTION B

QUESTION 3: GEOGRAPHICAL SKILLS AND TECHNIQUES



3.1

3.1.1 B (1)

3.1.2 A (1)

3.1.3 B (1)

3.1.4 G= VI/HE

=86,4 m-71,6m

=14,8m

HE=4,3 m X 500 m

=2150 m

14,8 m/2150m=1/145,27

G=1 : 145,27

3.1.5 Difference in years= 2026-2021=5 yrs

Total annual change= 5yrs X 12'=60'

MD for current year= 29˚ 00' + 60'

=30˚ 00' W of TN

Stanmorephysics.com

3.2.1 Low, presence of dams,presence of reservoir .(1+2)(3)

3.2.2 Recreational area,domestic use, generate hydroelectricity .(2X2)(4)

3.2.3 Flat land,away from people to avoid noise and safety of communities .(2X2)(4)

3.3

3.3.1 It is a system for capturing ,storing, analysing and displaying geographic data.(2)

3.3.2 Spatial data refers to location and shape of geographical features. And attribute data is a data that describes words,numbers and pictures.(2X2)(4)

3.3.3 a) secondary road,hiking trail (1)

b) buildings,rock of trees (1)

TOTAL: 150

Stanmorephysics.com