GRADE 11 GEOGRAPHY YEAR END EXAMINATION PAPER 1 MEMORANDUM

Marks: 225

Time: 3 hours

SECTION A

QUESTION 1

1.1.1. False ✔

1.1.2. False ✔

1.1.3. True ✔

1.1.4. False ✔

1.1.5. False ✔

1.1.6. True ✔

1.1.7. True ✔

1.1.8. False ✔

1.1.9. True ✔

1.1.10. True ✔ (10x1) (10)

1.2.

1.2.1. Coriolis ✔

1.2.2. Batholith ✔

1.2.3. Tropical easterlies ✔

1.2.4. Water table ✔

1.2.5. Sedimentary ✔ (5x1) (5)

1.3.

1.3.1. High pressure ✔ (1x1) (1)

1.3.2. Pressure is highest at the centre of the cell; ✔ ✔ pressure decreases outwards; ✔ ✔

1.3.3. the latitudinal position of the cell indicates it is high pressure. ✔ ✔ (*any one*) (1x2) (2)

1.3.4. Cold front ✔ (1x1) (1)

1.3.5. Summer. ✔ High temperatures ✔ / position of the high pressure cells ✔ / no Kalahari anticyclone is present ✔ (*any one correct reason*) (2x1) (2)

1.3.6. Temperature 20°C ✔ and dew point 19°C; ✔ 50% cloud cover; ✔ north-easterly ✔ 20 knot wind ✔ and no precipitation. ✔ (6x1) (6)

1.3.7. East coast – the warm current ✔ leads to higher evaporation levels ✔ and therefore cloud cover. ✔ West coast – the cold current ✔ means less evaporation and humidity ✔ therefore clear skies. ✔ (6x1) (6)

1.4.

1.4.1. A – tropical easterlies ✔ B – westerlies ✔ C – polar easterlies ✔ (3x1) (3)

1.4.2. D – tropical or Hadley cell ✔ E – mid-latitude or Ferrel cell ✔ F – polar cell ✔ (3x1) (3)

1.4.3. The Earth's rotation ✔ causes the winds to deflect; ✔ this is Coriolis force ✔ (3x1) (3)

1.4.4. Intertropical Convergence Zone / ITCZ ✔ (1x1) (1)

1.4.5. When it is summer in a certain hemisphere, pressure belts shift so the ITCZ is further north in June / July ✔ and further south in January. ✔ (2x1) (2)

1.5.

1.5.1. A – mesa ✔ B – butte / pointed butte ✔ C – conical hill ✔ (3x1) (3)

1.5.2. The softer layers of the mesa erode away with sheetwash ✔ until the hard cap breaks ✔ which narrows the landform. It becomes a mesa. With further erosion, scarp retreat ✔ continues until the hard cap erodes completely ✔ leaving a conical hill. (4x1) (4)

1.5.3. Karoo landscape ✔ (1x1) (1)

1.5.4. Very little seasonal rainfall ✔ ✔ (1x2) (2)

1.5.5. Talus slope – rock falls and eroded debris presents a danger. ✔ ✔ It is steep and inaccessible which makes building difficult. ✔ ✔ (2x2) (4)

1.5.6. Rock climbing, hiking or abseiling (*any one*) (1x1) (1)

1.5.7. Freeface ✔ (1x1) (1)

1.6.

1.6.1. The process where weathered material moves down a slope under the influence of gravity. ✔ ✔ (1x2) (2)

1.6.2. <u>Buildings</u>: these are heavy and have made cuts into the slope, which makes the slope unstable and can cause collapse. ✔ ✔

<u>Removal of vegetation:</u> If there are no roots to hold the soil in place it becomes loose and susceptible to movement. ✔ ✔

Excavation: these can compromise the stability of the slope which can lead to collapse. ✔ ✔

(*any TWO answers*) (2x2) (4)

1.6.3. Homes can be crushed ✔ ✔

Farms can be covered in eroded materials destroying crops ✔ ✔

Electricity lines and water pipes can be destroyed ✔ ✔

Sewerage pipes can be broken, leading to disease ✔ ✔

Transport routes can be blocked off ✔ ✔

(*any two*) (2x2) (4)

1.6.4. Fencing can be put on slopes to catch falling material ✔ ✔

Support walls can be built to stabilise slopes and soil ✔ ✔

Vegetation can be planted ✔ ✔

Channels can be built to direct runoff ✔ ✔

Building can be prevented in unstable areas ✔ ✔

(*any two suitable answers*) (2x2) (4)

[75]

QUESTION 2

2.1.1. Climate change ✔

2.1.2. Heat wave ✔

2.1.3. Subsidence ✔

2.1.4. Weather ✔

2.1.5. Biome ✔

2.1.6. Desertification ✔

2.1.7. Heavy rainfall ✔

2.1.8. Talus ✔

2.1.9. Dyke ✔

2.1.10. Waterfall ✔ (10x1) (10)

2.2. Answer must be in this form:

Hilly landscape	Badlands
Smooth slopes ✔ Regular rainfall ✔	Arid area ✔ Rugged landscape ✔
Horizontal strata ✔ (*must be mentioned on both sides to get the mark*)	

(5x1) (5)

2.3.

2.3.1. 0^o – low pressure ✔ 30^o – high pressure ✔ 60^o – low pressure ✔ (3x1) (3)

2.3.2. Toward 60^o ✔ (1x1) (1)

2.3.3. Air moves from an area of high pressure (at 30^o) ✔ to an area of low pressure (at 60^o) ✔. (2x1) (2)

2.3.4. During winter low pressure belts shift northward and closer to the coastline. ✔ ✔
Mid-latitude cyclones on this belt are blown from west to east ✔ ✔ by the westerly winds. ✔ ✔
These cyclones bring cold air to the Western Cape. ✔ ✔
The cold fronts bring frontal rain. ✔ ✔ (*any 3 suitable points for a full answer*) (3x2) (6)

2.4.

2.4.1. A prolonged period of little or no rainfall in an area. ✔ ✔ (*concept*) (1x2) (2)

2.4.2. Devastating effects on people ✔ ✔
Food shortages ✔ ✔
Food insecurity ✔ ✔
Increase in food prices ✔ ✔
Famine ✔ ✔
People live in refugee camps ✔ ✔
High number of deaths ✔ ✔
(*any two*) (2x2) (4)

2.4.3. Lack the technology to monitor and predict drought ✔ ✔
Unable to plant or have no access to genetically modified crops or alternate crops ✔ ✔
Poor irrigation systems ✔ ✔
No water schemes in place to get water from elsewhere ✔ ✔
Rely heavily on subsistence farming for food ✔ ✔
Lack funds to import food ✔ ✔

Less educated on soil management and sustainable farming techniques ✔ ✔

Government has less money to support citizens ✔ ✔

(*any 3 suitable answers)* (3x2) (6)

2.4.4. Build dams ✔ ✔

Plant genetically modified crops ✔ ✔

Plant crops that need less water ✔ ✔

Drought monitoring ✔ ✔

Harvest rain from rooftops or use containers ✔ ✔

Restrict irrigation ✔ ✔

Restore soil fertility ✔ ✔

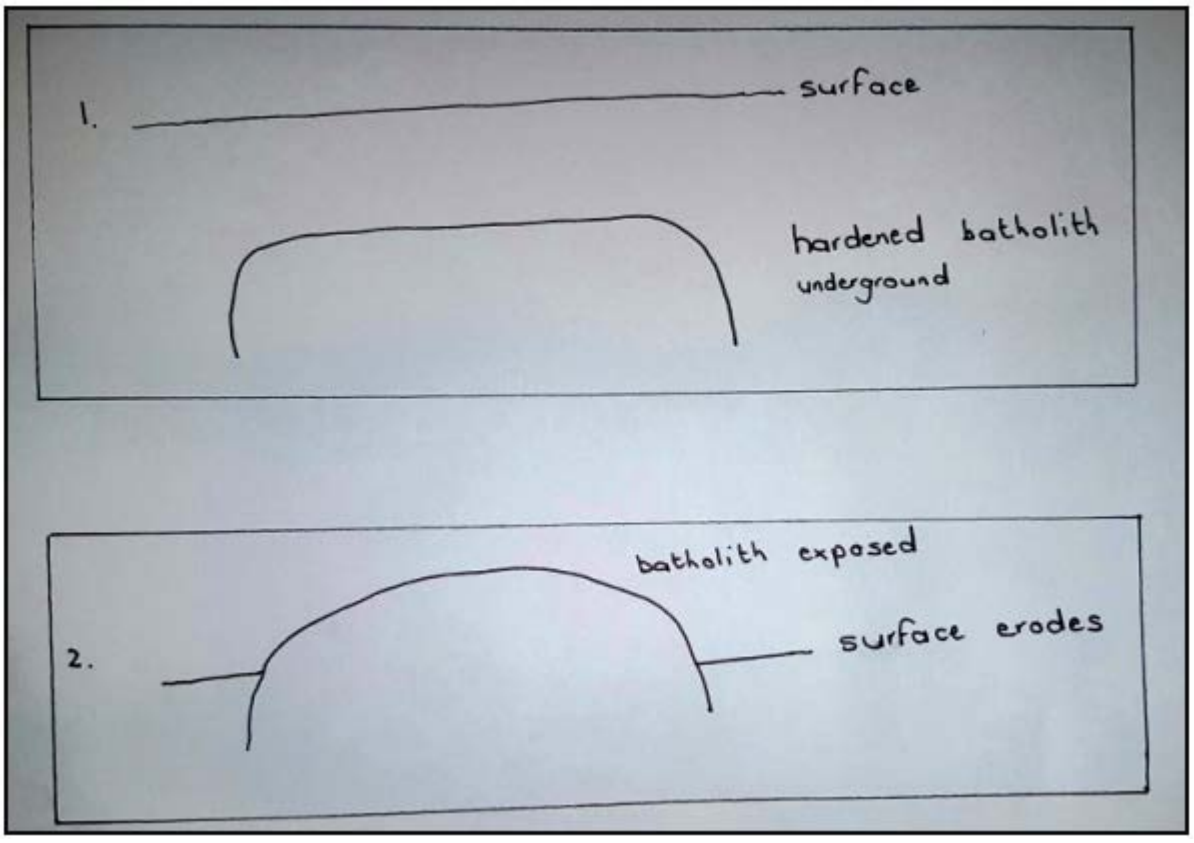
(*any 3 suitable answers*) (3x2) (6)

2.5.

2.5.1. A – granite dome ✔ B – tor ✔ (2x1) (2)

2.5.2. Batholith ✔ ✔ (1x2) (2)

2.5.3. A batholith made from cooled magma formed underground ✔ ✔ and over time the softer rock above it eroded away, exposing the batholith. ✔ ✔ Diagram:



✔ ✔ (3x2) (6)

2.5.4. Little activity can take place – abseiling, hiking or rock climbing. ✔ ✔ (*any one*) (1x2) (2)

2.5.5. Rockfalls ✔ ✔ (1x2) (2)

2.6.

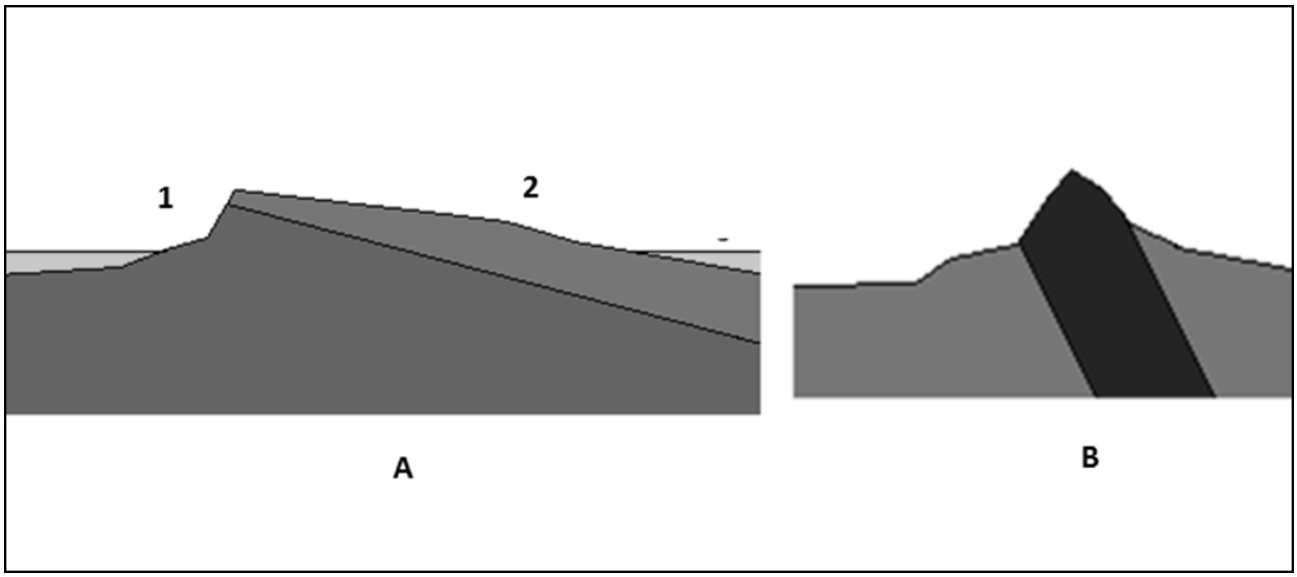
2.6.1. A ✔ (1x1) (1)

2.6.2. The angle of inclination is lower / the slope is less steep than B so it is a cuesta ✔ ✔ (1x2) (2)

2.6.3. Dip slope ✔ (1x1) (1)

2.6.4. Gentle slope ✔ ✔ (1x2) (2)

2.6.5. Diagram:



https://www.uwgb.edu/dutchs/Graphics-Geol/GEOMORPH/SedRockForms.gif

(*one mark per correct label for a maximum of 4 marks*) (4x1) (4)

2.6.6. Gradient allows for the building of homes ✔ ✔

Transport routes are possible, if difficult ✔ ✔

Forestry can take place on the thin soil (soil is too thin for farming) ✔ ✔

Recreational activities such as hiking, horse riding or trail running ✔ ✔

(*any 3 points in paragraph form*) (3x2) (6)

[75]

SECTION B: DEVELOPMENT GEOGRAPHY, RESOURCES AND SUSTAINABILITY

QUESTION 3

3.1

3.1.1 Acid rain ✔

3.1.2 Nuclear energy ✔

3.1.3 Humus ✔

3.1.4 Carbon footprint ✔

3.1.5 Fossil fuels ✔

3.1.6 Land degradation ✔

3.1.7 Free trade ✔

3.1.8 GDP ✔

3.1.9 Demographic indicators ✔

3.1.10 Trade deficit ✔

3.1.11 Import ✔

3.1.12 Quotas ✔

3.1.13 Exploit ✔

3.1.14 Biomass ✔

3.1.15 Coal ✔ (15x1) (15)

3.2

3.2.1 Development around the world is unequal ✔ ✔ (*concept*) (1x2) (2)

3.2.2 Food resources ✔ ✔ (*do not accept shelter or water*) (1x2) (2)

3.2.3 Panel 2 ✔ which shows a child in a large house with many manufactured / luxury items which means they have money. ✔ ✔ (1+2) (3)

3.2.4 Panel 1 – LEDC ✔ because it is rural; ✔ there is no modern technology; ✔ no electricity; ✔ basic food ✔ (*any one suitable reason*)

Panel 2 – MEDC ✔ the child is well-fed (over-fed); ✔ large home; ✔ clothing; ✔ technology; ✔ electricity ✔ (*any one suitable reason*) (4x1) (4)

3.2.5 High BR; ✔ Gini co-efficient of 0,58; ✔ HDI of 0,43; ✔ Low literacy rate; ✔ high IMR ✔ (5x1) (5)

3.3

3.3.1 Humanitarian aid is given in times of crises, such as natural disaster or conflict ✔ ✔ (1x2) (2)

3.3.2 Bilateral – aid given from one government to another, usually with conditions ✔ ✔

Development – Assistance or support for economic or human development in LEDCs, without conditions ✔ ✔ (*concepts*) (2x2) (4)

3.3.3 Shelter ✔

Food ✔

Medicine ✔

Water ✔

Clothes ✔

Blankets ✔

(*any one suitable answer*) (1x2) (2)

3.3.4 Yes:

Reduced chance of famine / provides food security ✔

Lowered death rate / lives are saved ✔

Population is able to rebuild livelihoods and support themselves in the long term ✔

People can rebuild homes ✔

Provides shelter ✔

Important medical care is provided ✔

Overall standard of living improves ✔ (*accept any 6 suitable points*)

No:

Possible increased dependency of LEDCs on donor countries ✔

Aid may not reach those who need it (limited resources) ✔

Possible corruption means people may not receive donations ✔

LEDC may be left in the debt of MEDCs, preventing future growth ✔

LEDC may be exploited for political gain ✔ (*accept any 6 suitable points*)

(*learner may present either side of the argument or both sides*) (6x1) (6)

3.4

3.4.1 Sunlight ✔
Soil ✔
Air (natural gases) ✔
Coal ✔
Minerals ✔
Animals ✔ (*any 2*) (2x1) (2)

3.4.2 Urbanisation – Space is needed for settlements to expand, so forests are cleared ✔ ✔
Agriculture – space is needed for commercial farming and raising cattle to meet food demands ✔ ✔
Fuel - population growth has increased the demand for fuel wood ✔ ✔
Subsistence farming – space is needed for people in LEDCs to grow their own food (they cannot afford to buy food) ✔ ✔
(*any 2*) (2x2) (4)

3.4.3 Soil erosion – tons of fertile topsoil is lost, plants can no longer grow in the area; the risk of desertification increases ✔ ✔
Global warming – climate change; flooding, droughts, disease all increase ✔ ✔
Extinction of species – food chains disrupted, more animals and plants may be lost ✔ ✔
Flooding – could be caused by increased runoff; indirectly related to deforestation because of climate change ✔ ✔
Drought – deforestation leads to climate change and drought ✔ ✔
(*any 2 points*) (2x2) (4)

3.4.4 Forests are cut down and cleared to make space for farms ✔ ✔ (1x2) (2)

3.4.5 The trees are cut down at a rate faster than they can grow again. ✔ ✔ (1x2) (2)

3.5

3.5.1 Coal ✔ (1x1) (1)

3.5.2 Large coal reserves means there is plenty of existing infrastructure ✔ ✔
It is costly to build new alternative energy plants ✔ ✔ (2x2) (4)

3.5.3 Renewable – the energy source will never run out ✔ (*concept*) (1x1) (1)

3.5.4 Solar / sun; ✔ water; ✔ wind ✔ (*any 2*) (2x1) (2)

3.5.5 The generation of energy from these resources does not result in pollution. ✔ ✔ (1x2) (2)

3.5.6 True ✔ ✔

Sources may not always be available ✔ ✔

Nature is unpredictable ✔ ✔

On a cloudy day, solar power is not useful ✔ ✔

Wind may not blow for a few days ✔ ✔

(*2 marks for agreeing with the statement and learner must give any 2 reasons*) (3x2) (6)

[75]

QUESTION 4

4.1

4.1.1 B ✔

4.1.2 B ✔

4.1.3 C ✔

4.1.4 A ✔

4.1.5 C ✔ (5X1) (5)

4.2

4.2.1 B ✔ ✔

4.2.2 A ✔ ✔

4.2.3 D ✔ ✔

4.2.4 C ✔ ✔

4.2.5 F ✔ ✔ (5x2) (10)

4.3

4.3.1 Globalisation is the interconnection of places around the world in terms of economic, social, political and cultural ways of life, due to technology ✔ ✔ (*concept*) (1x2) (2)

4.3.2 Factories in the distance ✔ ✔

Improved quality of life ✔ ✔

Improved services ✔ ✔

Improved infrastructure ✔ ✔

Increased technology (cars, electricity) ✔ ✔

Jobs ✔ ✔

(*any one*) (1x2) (2)

4.3.3 Reduced poverty ✔ ✔ (1x2) (2)

4.3.4 A) Primary ✔ B) secondary ✔ (2x1) (2)

4.3.5 Export-led development / economic development ✔ ✔ (1x2) (2)

4.3.6 Positive:

Improved services ✔

Technology ✔

Jobs ✔

Infrastructure ✔

Trade ✔

Economic development ✔

Reduced poverty ✔

Foreign investment ✔

Sharing of ideas and culture ✔ (*any 3*)

Negative:

Widened gap between rich and poor ✔

Exploitation of people in poorer countries ✔

Exploitation of resources in poorer countries ✔

Cultures of indigenous may be lost or disrupted ✔

Rural depopulation increased ✔ (*any 3*)

(*answer must be in a paragraph; subtract one mark for point form. Learner must present at least 3 point for positive AND 3 points for negative*) (6x1) (6)

4.4

4.4.1 Men and women are treated differently ✔ ✔ (*concept*) (1x2) (2)

4.4.2 Nigeria ✔ ✔ (1x2) (2)

4.4.3 Jobs – women cannot work or make less money ✔ ✔

Little or no education or training of women ✔ ✔

No voting rights ✔ ✔

Arranged marriages ✔ ✔

Women may not own property ✔ ✔

Forced prostitution ✔ ✔

(*accept other answers; ONE suitable answer*) (1x2) (2)

4.4.4 In LEDCs:

Women are not empowered to change their statuses or make decisions ✔ ✔

Cultural roles place women in positions with less power ✔ ✔

Women are not educated or trained ✔ ✔

Low status of women – treated poorly and not protected ✔ ✔

Women do not have the financial means to support themselves ✔ ✔

(accept other answers; *any TWO answers*) (2x2) (4)

4.4.5 Create job opportunities in management for women ✔ ✔

Raise awareness against violence towards women ✔ ✔

Teach women about self-empowerment and their rights ✔ ✔

Protect women's rights ✔ ✔

Include more women in fields traditionally associated with men ✔ ✔

Encourage women to attend and complete school ✔ ✔

Offer women scholarships ✔ ✔

Higher pay for women so they earn equal amounts as men ✔ ✔

(*accept other answers; any TWO answers*) (2x2) (4)

4.5.1. The removal of soil by wind and water ✔ ✔ (*key words must be included*) (1x2) (2)

4.5.2. Overstocking ✔

Overgrazing ✔

Little natural vegetation (trees) ✔

Soil left bare ✔

No wind breaks ✔

(*any THREE reasons*) (3x1) (3)

4.5.3. The soil erosion will continue / get worse ✔ (1x1) (1)

4.5.4. Windbreaks – trees are planted to prevent wind blowing soil away ✔ ✔

Limit livestock in one area – to prevent trampling the soil or overgrazing ✔ ✔

Rotational grazing – allows for natural vegetation to re-grow ✔ ✔

Encourage growth of plant cover – prevents loose soil blowing or washing away ✔ ✔

(*any TWO with explanations. Only ONE mark if no explanation is given*) (2x2) (4)

4.5.5. Environment:

Less soil fertility ✔

Reduce productivity of soil ✔

Land degradation ✔

Gullies become deeper because of increased runoff ✔

Deep gullies lower the water table ✔

Sedimentary deposits in dams decrease capacity of water in the dam ✔

Destroys ecosystems and habitats ✔

Loss of food source (plants) for animals ✔

Loss of shelter for animals ✔ (*any 3)*

Humans:

Land becomes unsustainable and cannot support people ✔

Decline in food production and food shortages ✔

Job losses on commercial farms ✔

Poverty and famine ✔

Health risks linked to discharge of chemicals in downstream waterbodies ✔

Collapse in farm production leads to rapid urbanisation

Social problems and conflict due to increased competition for resources ✔ (*any 3*)

(*Learner must refer to both environment and people*) (6x1) (6)

4.6.

4.6.1. The Northern Cape receives the most solar radiation annually ✔ ✔

(*concept*) (1x2) (2)

4.6.2. Large, flat land ideal for solar farms ✔ ✔

Low population means less space is needed for urbanisation – plenty of space available ✔ ✔ (2x2) (4)

4.6.3. Zero carbon emissions ✔ ✔

Renewable ✔ ✔

Sustainable ✔ ✔ (*any 2 suitable answers*) (2x2) (4)

4.6.4. Along the coastline, for example the Western Cape, Eastern Cape or KwaZulu-Natal ✔

There is a lot of wind along coastlines (sea and land breezes) that blows year-round ✔ ✔

Wind farms do not require flat land; coastlines are mountainous so cannot be used for most other forms of renewable energy ✔ ✔

(*any suitable reason*) (1+2) (3)

4.6.5. Hydro-electric power ✔

Geo-thermal energy ✔

Biofuel ✔

Tidal power ✔ (*any 1*) (1x1) (1)

[75]