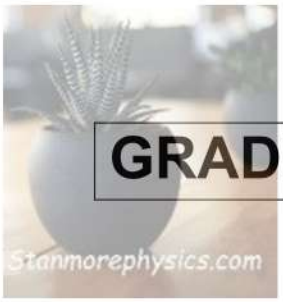
Province of the
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GRADE 11

JUNE 2023



GEOGRAPHY MARKING GUIDELINE

MARKS :150

This marking guideline consists of 9 pages.

PRINCIPLES FOR MARKING GEOGRAPHY – JUNE 2023

The following marking principles have been developed to standardise the marking process .

MARKING

- ALL questions MUST be marked, irrespective of whether it is correct or incorrect.
- Where the maximum marks have been allocated for a particular question, place an *M* over the remainder of the text to indicate the maximum marks have been achieved.
- A clear neat tick must be used: ✓
- If ONE mark is allocated, ONE tick must be used ✓
  - o If TWO marks are allocated, TWO ticks must be used ✓✓
  - o The tick must be place at the FACT that a mark is being allocated for
  - o Ticks must be kept SMALL, as various layers of moderation may take place
- Incorrect answers must be marked with a clear, neat cross: ×
  - o Use MORE than one cross across a paragraph/discussion style questions to indicate that all facts have been considered.
  - o Do NOT draw a line through an incorrect answer.
  - o Do NOT underline the incorrect facts

NOTE THE FOLLOWING

- If the numbering is incorrect or left out, as long as the sequence of answers to questions is followed candidates can be credited.
- Spelling errors if recognisable, award the marks provided the meaning is correct.
- Be sensitive to the sense of an answer, which may be stated in a different way
- In questions where a letter is the accepted response but the learner writes the actual answer – award marks.

TOTALLING AND TRANSFERRING OF MARKS

- Each sub-question must be totalled:
  - o Questions in Section A has five sub-sections, therefore five sub-totals per question required. Section B has three sub-sections and three sub-totals.
  - o Sub-section totals to be written in the right-hand margin at the end of the sub-section and underlined.
  - o Sub-totals must be written legibly.
  - o Leave space to write in moderated marks on different levels.
- Total sub-totals and transfer total to left-hand margin next to question number
- Transfer total to cover of ANSWER BOOK.

MODERATION

Marking on each level of moderation is done in the same way as the initial marking. All guidelines for marking must be adhered to.
If a mark for a sub-question is changed after moderation, the moderator must strike through the marker's mark and write down the new mark. 12 16
The total for the question must be re-calculated and similarly be struck off and the total must be written down. 36 26

QUESTION 1 : WEATHER AND CLIMATE

1.1

1.1.1 G – Air Mass √

1.1.2 A – Polar Front √

1.1.3 H – Adiabatic Lapse Rate √

1.1.4 B – Jet Stream √

1.1.5 I – Pressure Gradient √

1.1.6 E- ITCZ √

1.1.7 F – Earth's Radiation √

1.1.8 D – Westerlies √ (8)

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1.2 1.2.1 Dry √

1.2.2 Arid √

1.2.3 Climate change √

1.2.4 Incorrect √

1.2.5 Cutting down √

1.2.6 Save √

1.2.7 Reduced √ (7)

1.3

1.3.1 Insolation is radiation√ that is emmitted by the sun √ through the atmosphere to the surface of the earth (Concept) (1 x 2) (2)

1.3.2 Seasons √ (1 x 1) (1)

1.3.3
I. A √
II. C √
III. D √
IV. B √ (4 x 1) (4)

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1.3.4 Parallelism is the tilting√ of the earth throughout is revolution, causing variation√ in the distribution of heat energy on the earth's surface. (1 x 2) (2)

1.3.5 Equaly length of the day and Night / Daylenght is 12 hours. √√ (1 x 2) (2)

1.3.6 Point E has shorter √day length and recieves less amount of insolation √, because the Southern Hemisphere is tilted away from the sun√.
Point F has longer √ daylength and recieve greater amount of insolation√ because Northern Hemisphere is tilted towards the sun. √
[*Any two must be answered for both points E and point F]*
(2 x 2) (4)

[15]

1.4 1.4.1
A. Hadley cell √
B. Ferrel cell √
C. Polar cell √
(3 x 1) (3)

1.4.2
X – Sub-polar low pressure belt √
Y - Equatoral low pressure belt √
(2 x 1) (2)

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1.4.3 Coriolis force causes westerly winds to be deflected. √√
Deflection is to the right in the Southern Hemisphere and to the left in the Northern Hemisphere. √√
There is greater deflection because of the higher latitudes √√
[Any one correct answer]
(1 x 2) (2)

1.4.4 The confluence of the sub-tropical easterlies, results in the convection of warm air √√
As the air rises it cools and divergence of the cooler air in the upper air takes place √√
Cooling air subsides at 30°N & S latitudes √√
On the surface the air diverts to the equator where it heats up√√
Intensive heating around the equator (0º) causes vertical rise of air. √√
The air reaches the top part of the troposphere and diverge towards the poles. √√
At 30º north and south the air starts to descend because it cooled off. High pressure zone develops. √√
The air diverges at the surface, where some air flows back to the equator. √√
[Any four logically discussed points that show a complete cell of circulation]
(4 x 2) (8)

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[15]

1.5 1.5.1 Isobar √
(1 x 1) (1)

1.5.2 1016 mb √
(1 x 1) (1)

1.5.3 Isobar joins places with same atmospheric pressure on the synoptic weather map. √√
(2 x 1) (2)

1.5.4 A – has descending √ air whilst B has ascending air√
A – is associated with dry weather√ whilst B is associated with unstable weather. √
A – has divergeance√ of surface winds whilst B has convergeance √ of surface winds
(3 x 2) (6)

1.5.5 Air temperature – 21√
Dew point temperature – 9 √
(4 x 1) (4)

Wind direction – North Easterly √
Wind Speed - 10 knots √
Cloud cover – Overcast √
[Any four weather conditions shown in the enlarged station model]

[15]

QUESTION 2 : GEOMORPHOLOGY

2.1 2.1.1 Cuesta dome √

2.1.2 Cuesta basin √

2.1.3 Inclined strata √

2.1.4 Dip √

2.1.5 scarp slope √

2.1.6 Gentle √

2.1.7 Steep √ (7 x 1) (7)



2.2 2.2.1 A – Canyons √

2.2.2 C – pediplain √

2.2.3 A – dyke √

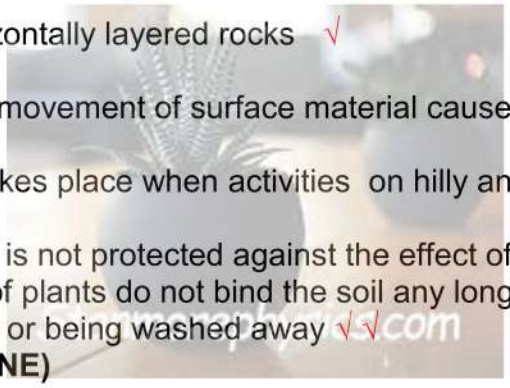
2.2.4 B – Hogsback √

2.2.5 A – Sill √

2.2.6 B – Batholiths √

2.2.7 D – mesa √

2.2.8 A - horizontally layered rocks √ (8 x 1) (8)



2.3 2.3.1 It is the movement of surface material caused by gravity. √ (1 x 1) (1)

2.3.2 Often takes place when activities on hilly and steep slopes. √√ (1 x 2) (2)

2.3.3 The soil is not protected against the effect of rain anymore √√ (1 x 2) (2)
Roots of plants do not bind the soil any longer, therefore becoming easier to move or being washed away √√
(ANY ONE)

2.3.4 Can cause blockages on the road √√ (1 x 2) (2)
Can cause accidents to road users √√
Can cause serious injury or even death √√
Rockfallss may bury the houses √√

Can cause damages to the property√√
[ANY TWO]

2.3.5 Use netting or caging to keep loose material intact √√ (
Building of rock walls or walls at the base of the slope to capture loose falling rocks √√
Spraying of cement on the side of the slope to stabilise the rock √√
Drilling of bolts and nuts into the slope to help stabilise it √√
Channelling of water out of the soil to help keep it drier √√
(ANY FOUR) 4 x 2) (8)
[15]

2.4 2.4.1 Canyon landscape / Karoo landscape √ (1 x 1) (1)

2.4.2 A – crest/waxing slope √ (4 x 1) (4)
B – cliff/free face/scarp √
C – T alus/scree/debris/constant slope √
D – pediment √

2.4.3 Enough height of the slope. √ (1 x 2) (2)
Steepness of the slope makes it suitable for such activities. √

2.4.4 D has more stable soil than E√√. Thick deposit of soil at D and more erosion at E√√. More deposit of nutrients on slope D and more runoff of nutrients at E √√. (1 x 2) (2)

2.4.5 A - convex √√ (3 x 2) (6)
soil creep √√
top of slope √√

B – Nearly vertical slope √√
Exposed rock √√

D – Bottom of slope √√
Concave shape √√
Gentle slope √√
Covered with soil layer √√
fertile soil √√
[ANY THREE. ONE FROM EACH SLOPE ELEMENT]

[15]

2.5 2.5.1 Pile of rounded core stones balancing on top of one another √√ (1 x 2) (2)
(Concept)

2.5.2 Batholith √ (1 x 1) (1)
Laccolith √
[ANY ONE]

2.5.3 The core stones are well rounded √√ (1 x 2) (2)

2.5.4 The base of the tor is still joined to the original granite rock √√ (2 x 2) (4)
Tors develop from igneous rocks, which are not easy to erode √√
During the development of tors, the core stones were joined when rain water seeped into the cracks and joints √√
(ANY TWO)

2.5.5 Igneous rocks cool down below the surface. √√ (2 x 3) (6)
Cooling magma results in cracks and joints in the rock. √√
Chemical weathering occurs as ground water seeps into the cracks and joints. √√
Joints and cracks are widened through erosion. √√
The eventual removal of overlying rock layers, exposes the core stones. √√
The joints and cracks are further widened through mechanical weathering and erosion. √√
(ANY FOUR)

[15]

SECTION B

QUESTION 3: MAP SKILLS AND CALCULATIONS

3.1 3.1.1 C – wind pump √ (1 x 1) (1)

3.1.2 a) Butte √ (1 x 1) (1)

b) 1406,9 m – 1404 m √
= 2,9 m √ (2 x 1) (2)

3.1.3 a) Formula: Gradient = $\frac{\text{Vertical Interval (VI)}}{\text{Horizontal Equivalent (HE)}}$ (5 x 1) (5)
..

Gradient = $\frac{1406,9 \text{ m} - 1\,326,7 \text{ m}}{3,2 \text{ cm} \times 500}$ ✓ ✓ ✓ (range 3,1cm – 3,3cm)

$\frac{80,2 \text{ m}}{1600 \text{ m}}$ ✓ (range 1550 m – 1650 m)

$\frac{1}{19,95}$

1: 19,95 ✓ (range 1:19,33 – 1:20,57)

(b) Gentle √ (1 x 1) (1)

[10]

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3.2 MAP INTERPRETATION

3.2.1 D – South West √ (1 x 1) (1)

3.2.2 C – Place of Worship √ (1 x 1) (1)

3.2.3 (a) Rockfalls √√ (1 x 2) (2)
Mudflows √√
Soil creep √√
[ANY ONE]

(b) Excavation of slope√√ (2 x 2) (4)
Loading of slope or its crest. √√
Drawdown (of reservoirs) √√
Deforestation√√
Too much Irrigation √√
Mining takes place in the area √√
Artificial vibration √√
Water leakage from utilities√√
[ANY TWO]

3.2.4 Presence of furrows √√ (2 x 2) (4)
Presence of dams √√
Presence of windpumps √√
Presence of reservoirs √√
[ANY TWO]

3.3 GEOGRAPHICAL INFORMATION SYSTEM

3.3.1 C – Buffering √ (1 x 1) (1)

3.3.2 (a) Spatial Data √√ (1 x 2) (2)

(b) Attribute Data √√ (1 x 2) (2)

3.3.3 (a) Raster data √ (1 x 1) (1)

(b) Data layering to determine relief layers with flat land for golf course. √√
Data manipulation to determine suitable and unsuitable areas for location of golf course. √√
Buffering to demarcate suitable area for golf from unsuitable areas. √√
Overlay analysis to determine ownership land-use. √√
Using satellite images to identify used land and unused land that is suitable for golf course. √√
[ANY ONE] (1 x 2) (2)