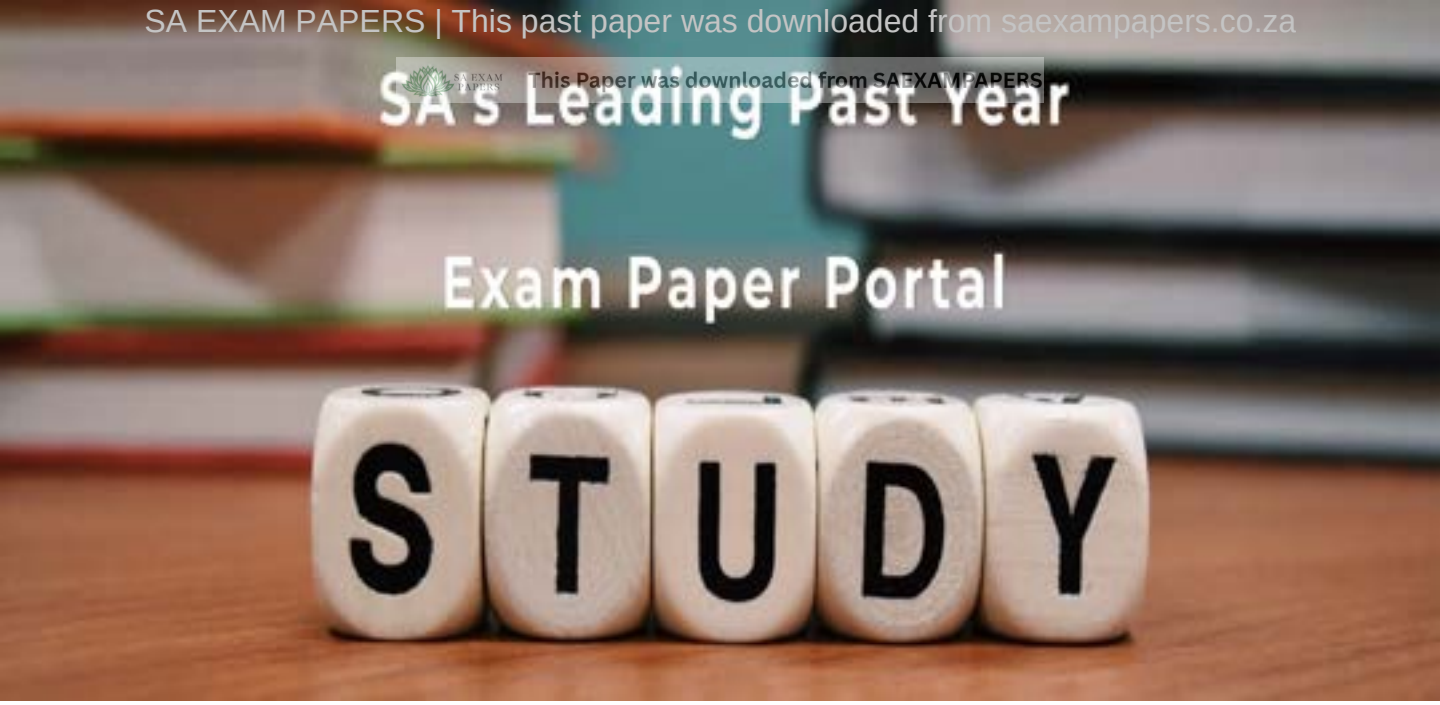


education

MPUMALANGA PROVINCE

REPUBLIC OF SOUTH AFRICA

NATIONAL SENIOR CERTIFICATE

GRADE 12

GEOGRAPHY P1

JUNE 2026

MARKING GUIDELINES

MARKS: 150

This marking guidelines consists of 11 pages.

MARKING PRINCIPLES FOR GEOGRAPHY- NSC JUNE 2026.

The following marking principles have been developed to standardise marking in all schools in the province.

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:
  - If TWO marks are allocated, TWO ticks must be used:
  - The tick must be placed at the FACT that a mark is being allocated for.
  - Ticks must be kept SMALL, as various layers of moderation may take place.
- Incorrect answers must be marked with a clear, neat cross:
  - Use MORE than one cross across a paragraph/discussion style questions to indicate that all facts have been considered.
  - Do NOT draw a line through an incorrect answer.
  - Do NOT underline the incorrect facts.

For the following action words, ONEword answers are acceptable: **list, name, state, identify**
For the following action words, a FULL sentence must be written: **describe, explain, evaluate, analyse, suggest, differentiate, distinguish, define, discuss, why, how**.
The following action words need to be read within its context to determine whether a ONE- word answer or FULL sentence is required: **provide, what, tabulate and give**

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.
- There will be additional guidelines for the marking of certain questions.

TOTALLING AND TRANSFERRING OF MARKS

- Each sub-question must be totalled.
  - 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.
  - Sub-section totals to be written in the right-hand margin at the end of the subsection and underlined.
  - Sub-totals must be written legibly.
- Leave room to write in moderated marks on different levels.
- Total sub-totals and transfer total to top left-hand margin next to question number.
- Transfer total to cover of answer book.

SECTION A: CLIMATE AND WEATHER AND GEOMORPHOLOGY

QUESTION 1: CLIMATE AND WEATHER

1.1

1.1.1 C (1)

1.1.2 C (1)

1.1.3 C (1)

1.1.4 D (1)

1.1.5 D (1)

1.1.6 D (1)

1.1.7 D (1)

1.1.8 B (1) (8 x 1) (8)

1.2

1.2.1 Summer (1)

1.2.2 High (1)

1.2.3 Unstable (1)

1.2.4 Increasing (1)

1.2.5 Thermal (1)

1.2.6 Moist (1)

1.2.7 Inversion (1)

1.3

1.3.1 Northern (1) (1 x 1) (1)

1.3.2 Jamaica is in the northern hemisphere (1)
It is a hurricane (1)
[ANY ONE] (1 x 1) (1)

1.3.3 Mellisa is the thirteenth tropical cyclone (1) (1 x 1) (1)

1.3.4 Gusty winds of 406km (2)
It caused catastrophic damages. (2)
[ANY ONE] (1 x 2) (2)

1.3.5 No moist from ocean to generate latent heat (2)
Dry air enters the system (2)
Friction on land cause the wind to slow down (2)
[ANY TWO] (2 x 2) (4)

1.3.6 Move people from low lying areas to high lying areas (2)
Always giving updates through media (2)
Educating people on how to minimize the impact of the tropical cyclone. (2)
Moving people to community centres to accommodate them. (2)
Providing people with food, blankets and clothing. (2)
Putting sandbags along the river banks to prevent flooding. (2)
[ANY THREE] (3 x 2) (6)

1.4

1.4.1 Thunderstorms that occur along the moisture front in summer. (2)
(1 x 2) (2)

1.4.2 **B-** north easterly wind (1)
C- south westerly wind (1) (2 x 1) (2)

1.4.3 Moisture front (1) (1 x 1) (1)

1.4.4 Cumulonimbus cloud (1)
very thick dark clouds / anvil shape (1) (2 x 1) (2)

1.4.5 Trigger flash flooding (2)
Produce heavy hail that can decimate crops and livestock(2),
Leading to massive economic losses for the agricultural sector(2)
The associated gale-force winds (2)
Frequent lightning strikes pose severe risks to infrastructure (2)
Loss of human life,
Cause power outages (2)
Structural damage (2).
Leads to rapid runoff rather than deep soil penetration, (2)
Causing significant soil erosion. (2)
[ANY FOUR] (4 x 2) (8)

1.5

1.5.1 It increases (1) (1 x 1) (1)

1.5.2 Buildings absorb and retain heat (2) (1 x 2) (2)

1.5.3 Johannesburg has high air pollution due to cars and factors.(2)
More hygroscopic nuclei for condensation.(2)
Greater instability and strong convection over built-up areas can cause vertical cloud development (2) (2 x 2) (4)

PART MARKING:
High pollution (1)
Hygroscopic nuclei (1)
Strong convection (1)
[MAX TWO MARKS]

1.5.4 Rural areas more vegetation(trees) plants undergo evapotranspiration, a process where they release water vapor into the atmosphere. This acts as a natural "air conditioner,". (2)
Many water sources that have a cooling effect. - consuming heat energy from the air to evaporate the water, thereby cooling the surrounding environment.(2) (2)
Less cars releasing carbon monoxide to increase temperatures. (2)
Less concrete surfaces that absorb heat impermeable surfaces like asphalt, concrete, and brick. These dark materials have a low albedo (reflectivity), meaning they absorb and store a massive amount of solar radiation (2)
Urban areas, with fewer trees and more drainage systems that whisk rainwater away, lack this significant cooling mechanism (2)
[ANY TWO] (2 x 2) (4)

PART MARKING:
More vegetation (1)
More water bodies (1)
Less cars (1)
Less concrete surfaces (1)
[MAX TWO MARKS]

1.5.5 Building should expand horizontally not vertically (2)
Create spaces between buildings. (2)
Having roof top gardens. (2)
Use light paint. (2)
Reflective Building Materials (Cool Roofs): By updating building codes to require high-reflectivity materials, the city can significantly lower indoor and outdoor temperatures.
Increasing "green cover" on man-made structures helps counteract the heat-retaining properties of concrete.
Urban Design & Airflow: Planning "urban canyons" to maximize natural ventilation and using shading devices (like awnings or trees over pavements).
[ANY THREE] (3 x 2) (6)
[60]

QUESTION 2: GEOMORPHOLOGY

2.1

2.1.1 Y (1)

2.1.2 Z (1)

2.1.3 Y (1)

2.1.4 Z (1)

2.1.5 Y (1)

2.1.6 Y (1)

2.1.7 Y (1)

2.1.8 Z (1) (8 x 1) (8)

2.2

2.2.1 B (1)

2.2.2 B (1)

2.2.3 A (1)

2.2.4 A (1)

2.2.5 B (1)

2.2.6 B (1)

2.2.7 B (1) (7 x 1) (7)

2.3

2.3.1 A – dendritic (1)
B – Trellis (1) (2 x 1) (2)

2.3.2 Igneous rock (1) (1 x 1) (1)

2.3.3 A – acute angles (2)

B - 90° bends (2)
Right angle (2) (2 x 2) (4)

2.3.4 The higher the density the higher the stream order(2) (1 x 2) (2)

2.3.5 Steep slopes (2)
Impermeable rock (2)
Low evaporation (2)
Sparse vegetation. (2)
High, consistent rainfall (2)
Low soil infiltration rates (2)
[ANY THREE] (3 x 2) (6)

2.4

2.4.1 When a more energetic river captures the headwaters of a less energetic river (2)
[CONCEPT] (1 x 2) (2)

2.4.2 A steeper gradient (on the one side of the watershed) (2)
More rainfall (on one side of the watershed) (2)
Less resistant/softer rock (on the one side of the watershed) (2)
[ANY ONE] (1 x 2) (2)

2.4.3 **X**- elbow of capture (1)
Y – wind gap (1) (2 x 1) (2)

2.4.4 Headward erosion (2) (1 x 2) (2)

2.4.5 River 1 (1) (1 x 1) (1)

2.4.6 River 1 has an increased volume of water (2) (1 x 2) (2)

2.4.7 **Reduction in Water Velocity and Volume**: The volume of water significantly decreases, transforming the stream into a smaller, low-energy channel compared to its original size. (2)
Increased Sedimentation : With reduced energy, the river deposits excess sediment, making the riverbed shallower and narrower. (2)
(2 x 2) (4)

2.5

2.5.1 Humans (1)
Factories (1)
Farming (1) (1 x 1) (1)

2.5.2 diarrhoea (2)
typhoid (2)
water borne diseases (accept examples)(2)
[ANY ONE] (1 x 2) (2)

2.5.3 Degradation of Water Quality and Aquatic Ecosystems (accept examples)(2)
Physical Disruption of the River Habitat (accept examples)(2)
Solid Waste and Plastic Accumulation (accept examples)(2)
[ANY TWO] (2 x 2) (4)

2.5.4 Agricultural Productivity and Food Security (2)
Industrial Power Generation and Economic Growth (2)
Industrial Water Supply: (2)
Flood Mitigation: (2)
Reduced Treatment Costs (2)
[ANY TWO] (2 x 2) (4)

2.5.5 **Enhanced Water Quality and Filtration**
Buffer zones act as filters that reduce sediment, nutrient and pesticide loads from overland surface runoff. (2)
Preventing Eutrophication: By capturing pollutants before they enter the water, buffers prevent excessive nutrient loading that causes harmful algae (2)
Vegetation helps filter pollutants out of shallow groundwater before it discharges into the river. (2)
Flood Risk Reduction and Drought Mitigation
Slowing Water Velocity: The vegetation in buffer zones (grasses/trees) acts as a physical barrier that which slows down surface runoff during heavy rain. (2)
Improving Infiltration: By slowing the water, it allows more time for water to seep into the ground, recharging groundwater supplies and reducing the peak volume of floods. (2)
Drought Resistance: Increased water retention in the soil and groundwater helps maintain higher base flows in the river during dry periods. (2)
Structural Stability and Erosion Control
The deep roots of trees and shrubs in riparian zones hold soil in place, significantly reducing riverbank erosion and minimizing land loss. (2)
Reduced Siltation: By preventing bank collapse and trapping sediment, buffers prevent silt from choking the riverbed, which maintains healthy habitats for aquatic invertebrates and fish spawning.(2)
Biodiversity and Ecological Connectivity
Habitat Provision: Buffer zones provide vital habitats and food sources (leaf litter) for both aquatic and terrestrial wildlife. (2)

Temperature Regulation: Tree canopies provide shade, cooling the water during hot weather, which is critical for cold-water species. (2)

Sustainability and Long-Term Value

Low Maintenance: native vegetation is self-sustaining and requires little to no maintenance, making it a cost-effective long-term solution compared to concrete infrastructure. (2)

[ANY TWO] (2 x 2) (4)

[60]

SECTION B

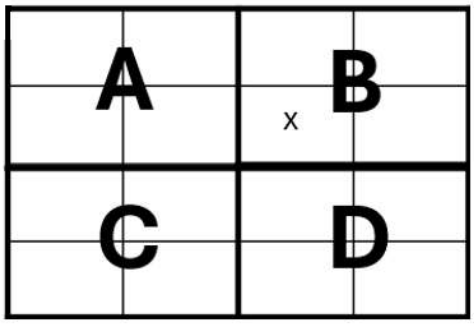
QUESTION 3: GEOGRAPHICAL SKILLS AND TECHNIQUES

3.1 MAP SKILLS AND CALCULATIONS

3.1.1 C (1)

3.1.2 D (1)

3.1.3



(1) (1 x 2) (2)

3.1.4 25°29′35"S (1) 31°31′43"E (1) (2 x 1) (2)

3.1.5 A = l x b
1,75km x 3,2 (1) cm x 0,5) **[Range: 3,0 – 3,3]**
1,75km x 1,6 (1) km **[Range: 1,5 – 1,65]**
= 2,8 km^2 (1) **[Range: 1,5 – 1,65]** (3 x 1) (3)

3.1.6 South West (1) (1 x 1) `(1)

3.2 MAP INTERPRETATION

3.2.1 i) Katabatic winds (1) (1 x 1) (1)

ii) Plant frost resistant crops.(2)
Cover crops with nets. (2)
Use green houses to warm the crops(2)
[ANY ONE] (1 x 2) (2)
(3 x 1) (3)

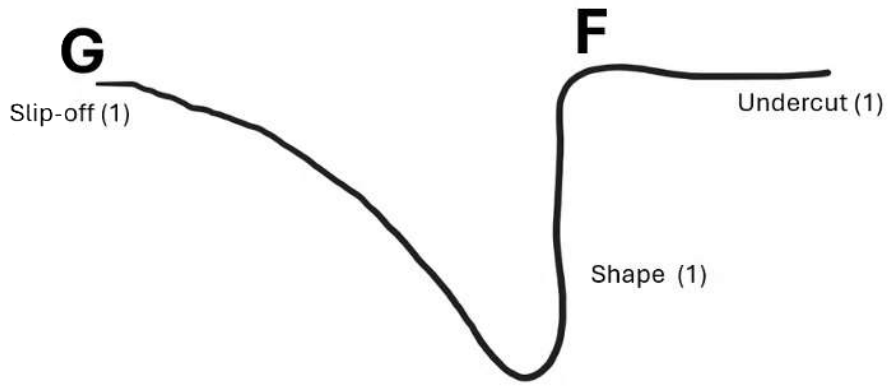
3.2.2 a) Decreases (1)

b) Altitude (1)

c) Natural features / vegetation (1) (3 x 1) (3)

3.2.3 Lower course (1) (1 x 1) (1)

3.2.4



(3 x 1) (3)

3.2.5 Presence of dams(1)
Canals (1)
Reservoirs (1)
[ANY TWO] (2 x 1) (2)

3.2 **GEOGRAPHICAL INFORMATION SYSTEM (GIS)**

i) Spatial (1). ..... (1 x 1) (1)

ii) Attribute (1)..... (1 x 1) (1)

3.3.2 a) The demarcation of an area (2) (1 x 2) (2)

b) To prevent any development closer to the river (2)
Prevent unauthorised people from using the river.(2)
Prevent pollution of the river.(2)
[ANY ONE] (1 x 2) (2)

3.3.3 Will assess the type of soil to plant suitable crops (1)
Determine the drainage to check availability of water.(1)
Will determine the slope of the land.(1)
Will determine the soil fertility. (1)
[ANY TWO] (2 x 1) (2)

[30]

TOTAL 150