LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
EDUCATION

NATIONAL
SENIOR CERTIFICATE

GRADE 12

GEOGRAPHY
CONTROLLED TEST 1
17 MARCH 2026
MARKING GUIDELINES

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MARKS: 60

These marking guidelines consist of 4 pages.

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QUESTION 1

1.1
1.1.1 B (1)
1.1.2 D (1)
1.1.3 B (1)
1.1.4 A (1)
1.1.5 D (1)
1.1.6 A (1)
1.1.7 A (1) (7 x 1) (7)

1.2
1.2.1 Z (1)
1.2.2 Y (1)
1.2.3 Y(1)
1.2.4 Y(1)
1.2.5 Z (1)
1.2.6 Y (1)
1.2.7 Z (1)
1.2.8 Y (1) (8 x 1) (8)

1.3
1.3.1 3 (1) (1 x 1) (1)

1.3.2 Southern Hemisphere (1)
(1 x 1) (1)

1.3.3 Winds blow in a clockwise direction in the Southern hemisphere (1) (1 x1) (1)

1.3.4 Greater friction over the land that slow down the wind speed (2)
Loss of moisture supply over the land (2)
Air cools down when entering temperate latitudes over the land (2)
Drier air enters the system which reduces the amount of condensation (2)
[ANY TWO] (2 x 2) (4)

1.3.5 Flooding will destroy roads and bridges disrupting trade and movement of goods (2)
Coastal flooding will disrupt port facilities delaying shipments that will increase costs (2)
Exports industries will face delays, reducing foreign earnings (2)
Power lines /electricity substations, and transformers will be damaged causing costly outages which will affect businesses (2)
Flooding can destroy pipelines, treatment plants, and sewage systems, requiring expensive repairs (2)

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Job losses lead to unemployment (2)
Costly insurance claims (2)
Cell towers and telephone lines may be damaged, affecting business operations leading to loss of income (2)
Hotels and resorts will be flooded leading to cancellation of bookings (2)
Coastal flooding will disrupt fisheries and aquaculture leading to food insecurity (2) (4 x 2) (8)

[ANY FOUR]

1.4

1.4.1 Pollution dome: a dome-shaped layer of polluted air that forms above a city when pollutants from vehicles, industries and other human activities become trapped over a city. (2) (1 x 2) (2)

[CONCEPT]

1.4.2 At night the Earth's surface cools rapidly, causing the air near the ground to become cooler and denser. (2)

Temperature inversion forms where warmer air lies above the cooler air preventing vertical air movement (2)

Pollutants are trapped near the surface causing pollution dome to be at lower level during the night. (2) (2 x 2) (4)

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[ANY TWO]

1.4.3 Smog (1) (1 x 1) (1)

1.4.4 Pollutants from vehicles, industries and power stations accumulate under the pollution dome (2)

Due to air being unable to circulate, these pollutants build up near the ground and form smog (2) (1 x 2) (2)

[ANY ONE]

1.4.5 At night, temperature inversion traps polluted air close to the ground and prevents it from mixing with cleaner air above. (2)

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This causes pollutants to accumulate, reducing the amount of clean air available (1 x 2) (2)

[ANY ONE]

1.4.6 Use cleaner energy sources such as solar, wind or natural gas to reduce the amount of pollutants (2)
Install pollution control technology such as filters and scrubbers in chimneys to reduce harmful gases released into the atmosphere (2) (2 x 2) (4)

1.5

1.5.1 A- Rectangular pattern (1)

B- Dendritic pattern (1) (2 x 1) (2)

1.5.2 A- developed on igneous rock that has joints and cracks (1) (1 x 1) (1)

1.5.3 Streams develop right angle bends where the joints meet (2) (1 x 2) (2)

1.5.4 High (1) (1 x 1) (1)

1.5.5 3rd order (1) (1 x 1) (1)

1.5.6 The higher the stream order, the higher the drainage density (2) (1 x 2) (2)

1.5.7 Slope (gradient): steeper the slope promotes surface run-off leading to formation of many tributaries that results in high drainage density (2)

Rock with low permeability (impermeable rock) prevent water infiltration and promotes surface run-off that results in high drainage density. (2) (2 x 2) (4)

GRAND TOTAL : 60

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