KWAZULU-NATAL PROVINCE
EDUCATION
REPUBLIC OF SOUTH AFRICA

PROVINCIAL STANDARDISED ASSESSMENT

GRADE 12

GEOGRAPHY P1

PREPARATORY EXAMINATION

SEPTEMBER 2026

MARKING GUIDELINES

MARKS: 150

This question paper consists of 8 pages.

Copyright reserved

QUESTION 1: CLIMATE AND WEATHER

1.1

1.1.1 Z (westwards)
1.1.2 Y (ascending)
1.1.3 Z (warm core)
1.1.4 Y (Adiabatic heating)
1.1.5 Y (clear skies)
1.1.6 Z (increases)
1.1.7 Z (Cumulonimbus)
1.1.8 Z (divergence)

(8 x 1) (8)

1.2

1.2.1 Winter
1.2.2 Winter
1.2.3 Summer
1.2.4 Summer
1.2.5 Winter
1.2.6 Summer
1.2.7 Winter

(7 x 1) (7)

1.3.

1.3.1 Mature. (1 x 1) (1)

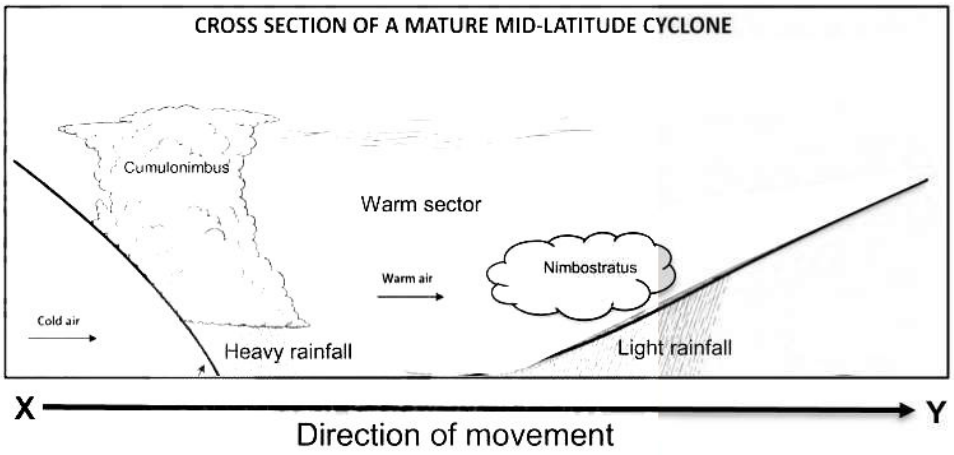
1.3.2 Presence of a well-defined cold front or warm front.
Presence of well-developed sectors (cold and warm sector)
The wave has deepened in the apex.
[ANY ONE] (1 x 2) (2)

1.3.3 Decrease in surface air temperature.
Increase in air pressure.
Cloudy conditions/cumulonimbus clouds.
Increase in rainfall.
Possibility of snowfall.
Strong/ gale force winds.
Change in wind direction to the left (backing).
Decrease in humidity
[ANY TWO] (2 x 2) (4)

1.3.4 Cold front brings cold air which lowers temperatures.
Cold front brings cold, dense and heavy air which increases air pressure
Cold air undercuts warm air and forces it to rise rapidly to form cumulonimbus clouds.
Cumulonimbus clouds result in heavy rainfall.
Cold front has steep pressure gradient
The approaching winds will be deflected by the Coriolis Force.
Cold air holds less moisture.
[ANY TWO] (2 x 2) (4)

Copyright reserved

1.3.5



1 Mark for the correct cross section
1 mark for one cloud type
1 mark for warm sector
1 mark for heavy rainfall OR
1 mark for light rainfall (4 x 1) (4)

1.4

1.4.1 Boundary/zone of separation between two air masses with different moisture content.
[CONCEPT] (1 x 2) (2)

1.4.2 North easterlies (1 x 1) (1)

1.4.3 Heavy rainfall
Hail (2 x 1) (2)

1.4.4 Blows from the cold Atlantic Ocean.
Evaporation rate is low over the Atlantic Ocean.
Cold Benguela current decreases moisture content.
[ANY ONE] (1 x 2) (2)

1.4.5 Natural habitat will be destroyed.
Vegetation will be destroyed.
Ecosystem will be destroyed/destruction food chain/food web.
Biodiversity will be reduced.
Top soil will be washed away.
Mass movement can be triggered.
Wildlife will be displaced/drowned.
Sinkholes may be formed.
Lightning ignites fire.
Silting of rivers/reduced carrying capacity of the river.
[ANY FOUR] (4 x 2) (8)

Copyright reserved

1.5

1.5.1 Katabatic winds. (1 x 1) (1)

1.5.2 Temperature inversion. (1 x 1) (1)

1.5.3 Frost. (1 x 1) (1)

1.5.4 Cold air/katabatic winds accumulate in the valley floor resulting in temperature dropping to below freezing point.
INSTRUCTION FOR PART-MARKING
Cold /katabatic winds accumulate in the valley floor. (1) (1 x 2) (2)

1.5.5 Frost kills pests/insects.
Melting of frost moistens (dampens) the soil
Increases availability of water.
[ANY TWO] (2 x 2) (4)

1.5.6 Plant frost resistant crops on the valley floor. (Accept examples).
Plant trees on the shadow zone because the soil is damp.
Plant crops which require warmer temperatures on the North facing slope/south slope.
Use of greenhouse to create artificial heat for sensitive crops.
Cover the crops against frost.
Use fire drums/light to keep livestock warm.
Use fans to keep air circulating. (3 x 2) (6)
[60]

QUESTION 2 GEOMORPHOLOGY

2.1

2.1.1 B
2.1.2 A
2.1.3 B
2.1.4 A
2.1.5 B
2.1.6 A
2.1.7 B

(7 x 1) (7)

2.2

2.2.1 D (Flood plain).
2.2.2 F (Levee).
2.2.3 H (Undercut slope).
2.2.4 G (Ox-bow Lake).
2.2.5 A (Braided stream).
2.2.6 B (Superimposed).
2.2.7 C (Delta).
2.2.8 E (Meander)

(8 x 1) (8)

Copyright reserved

2.3.

2.3.1	A river flowing over vertical cliff with hard/resistant rock. **[CONCEPT]**	(1 x 2)	(2)
2.3.2	Upper course.	(1 x 1)	(1)
2.3.3	In a waterfall, hard rock overlies the soft rock whereas in a rapid, they are layers of hard and soft rocks that creates an uneven riverbed. Waterfall is a vertical drop in a river whereas the rapid is a section of turbulent water where the riverbed is uneven. In a waterfall water plunges into a plunge pool whereas in a rapid water flow over an uneven riverbed. **[ANY ONE]**	(1 x 2)	(2)
2.3.4	The softer rock is eroded leaving the hard rock exposed. Erosion/undercutting of less resistant/soft rock occurs. Erosion/undercutting will create a plunge pool. The resistant/hard rock is not supported by the soft rock and overhang. The overhanging resistant/hard rock collapses. **[ANY TWO]**	(2 x 2)	(4)
2.3.5	Attract tourists Aesthetic appeal. Used to generate hydro-electricity. Used for adventurous sports (Accept examples). **[ANY THREE]**	(3 x 2)	(6)

2.4

2.4.1	Process whereby the more energetic river robs/intercepts/steals the headwaters of a less energetic river. **[CONCEPT]**	(1 x 2)	(2)
2.4.2	Steeper gradient. Softer rock. Increased rainfall. One river flow on a lower altitude. **[ANY ONE]**	(1 x 1)	(1)
2.4.3	The volume of water will be increased resulting in downward erosion. INSTRUCTION FOR PART-MARKING The volume of water will increase. (1)	(1 x 2)	(2)
2.4.4	It is smaller than its channel/it is too small for the size of the valley.	(1 x 2)	(2)
2.4.5	Headwaters of the less energetic river are captured by the captor stream. Water supply in the lower course of the captured stream decreases. Volume of water decreases and the valley remains bigger/wider. **[ANY TWO]**	(2 x 2)	(4)

Copyright reserved

2.4.6 Reduced water available for irrigation.
Reduced water available for livestock.
Reduced water available for aquaculture.
Infertile soils due to less deposition on the flood plain.
Increased irrigation costs. (2 x 2) (4)
Lower profit/lower yields.
Farmers relying on hydroelectricity will be negatively affected.
[ANY TWO]

2.5

2.5.1 Controlling and monitoring of water in the river for now and future generations.
[CONCEPT] (1 x 2) (2)

2.5.2 Raw sewage overflow/sewage spills. (1 x 1) (1)

2.5.3 Air pollution/bad smell.
Health risk.
Impacts on environment and tourism.
[ANY TWO] (1 x 2) (2)

2.5.4 Removal of trees will accelerate run off increasing pollution of the river/more sewage will reach the river/increase in river pollution.
Sewage plant will be more accessible for maintenance to stop sewage spills, decreasing pollution of the river.
INSTRUCTION FOR PART-MARKING
Increase in runoff (1)
Sewage plant will be accessible (1)
[ANY ONE] (1 x 2) (2)

2.5.5 Build sewage works.
Proper maintenance of sewage facilities.
Upgrade sewage treatment plants.
Monitor water quality.
Create a buffer zone.
Use environmentally friendly pesticides.
Promote sustainable farming practises.
Promote community clean-up programmes.
Enforce bylaws/implement legislation.
Encourage growing of vegetation.
Educate the public/public awareness campaigns.
Impose fines.
Recycling of waste.
[ANY FOUR] (4 x 2) (8)

[60]

Copyright reserved

QUESTION 3: GEOGRAPHICAL SKILLS AND TECHNIQUES

3.1 MAP SKILLS AND CALCULATIONS

3.1.1	A (East)	(1 x 1)	(1)
3.1.2	B.	(1 x 1)	(1)
3.1.3	(a) 318 (Range 317° to 319°)	(1 x 1)	(1)
(b)	Magnetic bearing = magnetic declination + true bearing 2026-2015 = 11 years (1) 11 years x 7′ W = 77′ W (1) 25° 03′ W + (1) 77′ W = 26° 20′ West of True North (WTN) (1) Magnetic bearing = 26° 20′ W + 318° = 344° 20′ (1) (Range 343° to 345°)	(5 x 1)	(5)
3.1.4	To determine the True north.	(1 x 2)	(2)

3.2 MAP INTERPRETATION

3.2.1	Darker.	(1 x 1)	(1)
3.2.2	The temperature at area **8** will be lower than temperature at the built-up area around it.	(2 x 1)	(2)
3.2.3	Vertical /downward erosion.	(1 x 1)	(1)
3.2.4	Gradient is steep/contour lines are close together. High water velocity. **[ANY ONE]**	(1 x 2)	(2)
3.2.5	South west.	(1 x 2)	(2)
3.2.6	Contour lines bend towards North east. River flows from trigonometrical station 404. **[ANY ONE]**	(1 x 2)	(2)
3.2.7	Row of trees/ windbreaks are on the North of the orchard and vineyards. Wind breaks are planted perpendicular to the prevailing wind. **[ANY ONE]**	(1 x 2)	(2)

Copyright reserved

3.3. GEOGRAPHICAL INFORMATION SYSTEMS (GIS)

3.3.1	Raster.	(1 x 1)	(1)
3.3.2	Main road (Road 310) Width. Length. Winding. **[ANY ONE]**	(1 x 2)	(2)
3.3.3	Drainage.	(1 x 1)	(1)
3.3.4.	Demarcation around a feature or an object. **[CONCEPT]**	(1 x 2)	(2)
3.3.5	Restricts development on the banks of the river. Decrease pollution of the river. Reduces eroded soil from entering the river. Reduces salinity. Natural capacity of the river will be maintained. Biodiversity of the river will be preserved. **[ANY ONE]**	(1 x 2)	(2)
			[30]

GRAND TOTAL: 150

Copyright reserved