KWAZULU-NATAL PROVINCE
EDUCATION
REPUBLIC OF SOUTH AFRICA

NATIONAL SENIOR CERTIFICATE

GRADE 12

GEOGRAPHY

MARKING GUIDELINES

COMMON ASSESSMENT TASK

MARCH 2025 TEST

MARKS: 60

N.B. This marking guidelines consist of 5 pages.

QUESTION 1: CLIMATE AND WEATHER

1.1

1.1.1 B (Moisture front)

1.1.2 A (The interaction of cold, dry air with warm, moist air)

1.1.3 A (Intense thunderstorms and rainfall)

1.1.4 B (Warm, moist air from the Mozambique Current is forced to rise along the escarpment)

1.1.5 C (warm moist air)

1.1.6 D (Stronger inflow of warm, moist air from the east) (6 x 1) (6)

1.2

1.2.1 Westwards
From east to west (1 x 1) (1)

1.2.2 Sea surface temperatures must be 26.5°C and above.
Warm ocean where the air pressure is low.
Sufficient moisture. / release of the latent heat / large scale evaporation
Presence of Coriolis force / between 5° N/S to 25° N/S latitudes
Surface convergence / Unstable atmospheric condition
Upper air divergence
Calm windless conditions / Little/less friction / low wind shear
ANY TWO (2 x 1) (2)

1.2.3 Tropical Cyclone Bheki weakened because it moved over cooler ocean waters, reducing the energy available to sustain it.
High atmospheric pressure over cold ocean.
Less moisture over the land / Less latent heat
Friction over the land
ANY ONE (1 x 1) (1)

1.2.4 Social – Floods with result in water-borne diseases (accept examples)
- Disruption of businesses, transport and utility by floods.
- Flight disruptions at regional airport by strong winds
- Temporary closure of ports due to storm surges by strong winds

Environment - Heavy rainfall result in flooding
- Landslides due to flooding
- Coastal erosion due to storm surges
- Disruption of ecosystem and biodiversity due to flooding (accept examples).

ANY TWO (leaner must DISCUSS at least one from both social and environmental) (2 x 2) (4)

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1.2.5
- Authorities should implement an effective early warning system to alert residents in advance.
- Communities should be educated on evacuation procedures and emergency preparedness through awareness campaigns.
- Infrastructure in cyclone-prone areas, such as houses, schools, and hospitals, should be strengthened to withstand high winds and flooding.
- Emergency shelters should be established in safe locations / high lying areas to accommodate displaced individuals.
- Drainage systems should be upgraded to reduce flooding.
- Authorities should ensure the availability of emergency supplies like food, water, and medical kits for post-disaster relief.
- Post-cyclone health interventions, such as water purification and vaccination programmes, can help prevent disease outbreaks caused by contaminated floodwaters.

ANY TWO (2 x 2) (4)

1.3

1.3.1 Higher temperature over the city surrounded by lower temperatures in rural areas.
An urban heat island is a localized area within a city or metropolitan area that experiences significantly higher temperatures than its surrounding rural area.
[CONCEPT] (1 x 2) (2)

1.3.2 $10^{O}C$ ($34^{O}C - 24^{O}C$).
Area A has lower temperatures while area B has higher temperatures. (1 x 2) (2)

1.3.3 Area B has less / no vegetation which increases temperatures
Areas A has more vegetation which lowers temperature. (2 x 2) (4)

1.3.4
- Increase the number of trees and green spaces in urban areas to provide shade and reduce surface temperatures.
- Create cool roofs (eco roofs/green roofs/ roof gardens) or reflective building materials that help cool down buildings.
- Develop water features, such as ponds or fountains, in urban areas to help cool the air through evaporation
- Use reflective or light-colored materials for pavements, roads, and sidewalks
- Plant more trees along streets and in urban spaces to enhance natural cooling through shade and transpiration, reducing the overall heat retention in these areas.
- Replace traditional impervious/impermeable surfaces with permeable materials (e.g. permeable paving, grasscrete) that allow water to pass through, reducing surface temperatures and increasing the natural cooling effect.
- Industrial and commercial decentralisation
- Education campaigns on green policies/ encourage recycling in cities.
- Reduce the number of private vehicles in cities / improve public transport

ANY THREE (3 x 2) (6)

QUESTION 2

2.1

2.1.1 Y (upper course) (1)
2.1.2 Z (low) (1)
2.1.3 Y (flood plain) (1)
2.1.4 Y (drainage basin) (1)
2.1.5 Z (laminar) (1)
2.1.6 Y (longitudinal) (1)
(6 x 1) (6)

2.2

2.2.1 Drainage density is the total length of all streams and rivers in a drainage basin divided by the total area of the basin.
[CONCEPT] (1 x 2) (2)

2.2.2 A= drainage density is high
B= drainage density is low (2 x 1) (2)

2.2.3
- Gentle soaking rain enables more water to infiltrate the soil resulting is less density at B.
- Flat land encourages more infiltration and less surface run-off resulting in lower drainage density
- More/dense vegetation increases infiltration reducing drainage density
- Less tributaries at B results in a lower density
- High evaporation rates decrease the amount of water in rivers
- Dry ground absorbs greater amount of moisture resulting in less density
- High degree of porosity increases infiltration reducing drainage density.
- High degree of permeability results in greater infiltration and less drainage density

ANY FOUR (4 x 2) (8)

2.3

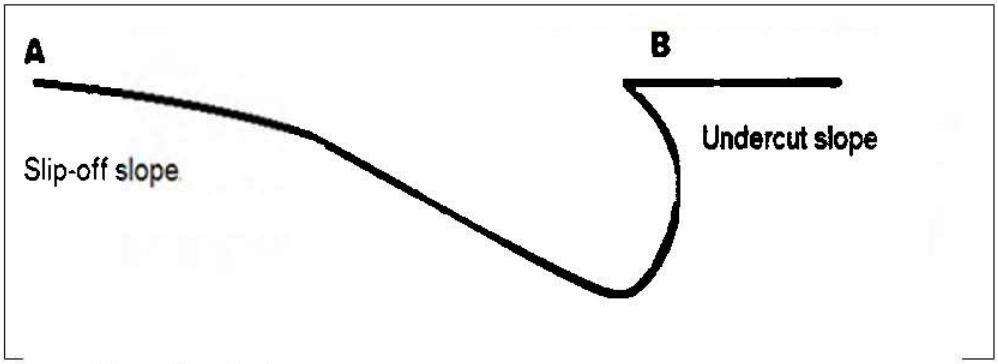
2.3.1 Meander (do NOT ACCEPT meandering) (1 x 1) (1)

2.3.2 Lower course (1 x 1) (1)

2.3.3 Erosion (1 x 1) (1)

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2.3.4



1 mark for slip off slope
1 mark for undercut slope
1 mark for correct diagram (3 x 1) (3)

2.3.5 - Meanders have fertile soil which is good for farming
- Buildings and infrastructure near the outer banks are at risk of being flooded
- Increases recreational activities (accept examples)
- Flat land is useful for human settlement
- Availability of water for farming (accept examples)
- Availability of water for domestic use

ANY THREE (3 x 2) (6)

TOTAL: 60

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