GEOGRAPHY: PAPER I

MARKING GUIDELINES

Time: 3 hours 300 marks

These marking guidelines are prepared for use by examiners and sub-examiners, all of whom are required to attend a standardisation meeting to ensure that the guidelines are consistently interpreted and applied in the marking of candidates' scripts.

The IEB will not enter into any discussions or correspondence about any marking guidelines. It is acknowledged that there may be different views about some matters of emphasis or detail in the guidelines. It is also recognised that, without the benefit of attendance at a standardisation meeting, there may be different interpretations of the application of the marking guidelines.
QUESTION 1

1.1 1.1.1 (a) 83 km (2)
(b) 361 km (2)

1.1.2 (a) False (2)
(b) True (2)
(c) False (2)
(d) False (2)

1.2 1.2.1 Mid-latitude cyclone/Frontal depression/Temperate cyclone/Extra-tropical cyclone
Abbr. (1) Cold/warm front (1) LD (1) Cyclone (2)

1.2.2

1.2.3 • A cut-off low is a stationary cyclone so instability/uplift is concentrated on one area (E Cape and KZN)/warm moist air is drawn in from the NE. Cold air (2)/moisture (2)
• If humidity is high and temperature low enough, snow will result.
• (Give credit for the use of a diagram) (4)

1.2.4 Any TWO weather conditions:
• Heat waves and associated fire risks
• Drought conditions
• Strong winds associated with tropical cyclones

Effect (1) (veld fires, waves)
Tornadoes/by winds/lightning/cold fronts/lightning (1) (4)

1.2.5 A GIS can process a large amount of spatial data such as satellite imagery, weather station data, river discharge info, topographic data to produce maps to help access risk.
A GIS can model the risk and send out warnings to save lives and reduce costs.
1 Concept well (2)
2 Fairly well
4 Layers (4)
1.3 1.3.1 Dendritic/tree shaped. (1)  
1.3.2 Any TWO characteristics:  
• Rock uniformly resistant to erosion  
• Horizontal rock  
• Distinct interfluves  
• Area similar gradient  
1.3.3 The dendritic pattern may result in the discharge from tributaries reaching the main river at the same time. This can result in the peak discharge being higher than normal and flooding can result. Formula (2)  
1.3.4 (a) Drainage density refers to the total length of streams per unit area. **OR** Drainage density is the ratio between the total length of all the streams in a drainage basin and the area of the drainage basin. (2)  
(b) Medium (2)  
1.3.5 (a) Superimposed (2)  
(b) The surface has been eroded and the Klein Brak River has reached older, folded, underlying rock. The Klein Brak River has maintained its original course and is not affected by the underlying rocks/has cut through the Outeniqua mountains without changing its course. The new drainage present day drainage pattern no longer reflects the underlying rock/reference to diagram. (4)  
1.4 1.4.1 Water security is the availability and access to sufficient quality/quantity of water for current and future needs. (2)  
1.4.2 A desalination plant converts seawater into potable/drinkable water. Why/Extra H2O (2)  
1.4.3 To provide an alternative water supply to Mossel Bay in years of drought and when the Hartebeeskuil dam runs dry. To ensure water security in the Mossel Bay region. (Use area.) (4)  
1.4.4 • Name ONE (2) method + evaluate pros and cons (2):  
• Water transfer scheme  
• Building another dam on the Klein Brak River  
• Implementing water restrictions/managing water demand  
• Water saving education/water wise/communication from DWAF  
• Increasing cost of water  
• Removing alien vegetation  
• Recycling water/grey water  
• Water harvesting/eng ground H2O use cloud seeding (4)  
1.5 1.5.1 Grid/gridiron street pattern. Rectangular (1) Description (1) Plan (1)  
1.5.2 • Easy to lay out/navigate/extend and devide  
• Similar plot/erf size has easy access to roads  
• Cost effective for municipalities to supply services  
• Easy to manage/route (4)  
1.5.3 • KwaNonqaba is typical of (apartheid planning (2)) as it is located on the outskirts of Mossel bay, 10 km from CBD and close to noisy N2.  
• Close to employment demand of Mossgas industrial area and harbour.  
• Must refer to Figure 1. (4)  
1.5.4 (a) Fishing (harbour)/farming/drilling  
(b) Manufacturing (Industrial area/Mossgas/desalination plant)  
(c) Service industry/retail/tourism (CBD/Coastal attractions of Mossel bay/spaza shops (3)
1.5.5 THREE services:
- Electricity
- Hot water – solar geysers
- Street lights
- Sewage (outside toilet visible)
- Invis: fencing
- Transport/road
- Water/refuse removal

NOT housing
NOT telephones

1.5.6 Explain and review the purpose of the RDP:
- Reconstruction and development program was implemented in 1994. It was an integrated socio-economic policy framework. Focused on meeting basic needs, developing human resources, building human resources and democratizing the state and society. Has been discontinued.
- Was replaced by GEAR, then ASGISA (Accelerate Shared Growth Initiative of South) and now New Growth Path
- Criticised as housing provision was of poor quality, water provision insufficient and land reform not addressed properly. Delivery and performance seen as weak. Unfulfilled promises.

Other strategies aimed at improving urban settlements + evaluate:
- Government strategies such as SDIs/IDZs/New Growth Path
- Urban development zones/Precincts/Crime fighting interventions/ Targeted interventions, e.g. Hillbrow Renewal Project.
- Local Agenda 21/Sustainable strategies such as 'greening' cities/ improving urban transport
- NGOs (case studies such as Markets of Warwick/other)

100 marks

QUESTION 2  TROPICAL CYCLONES, MASS MOVEMENTS, FLUVIAL GEOMORPHOLOGY AND URBAN CLIMATE

2.1 2.1.1 (a) A – South Atlantic High/HP/anticyclone
       B – South Indian High/HP/anitcyclone
       (b) C – Cold front
       (c) D – Mid-latitude cyclone (extra-tropical cyclone, temperate cyclone, frontal depression)
       (d) E – heat or thermal low/interior LP/continental LP/trough of LP/trough.

2.1.2 As it is late summer, the pressure cells A and B have shifted southwards with the apparent position of the sun. These pressure cells block the movement of the mid-latitude cyclone northwards and prevent cyclonic rainfall along the coast/Miss SA – cold fronts.
2.1.3 THREE pieces of evidence that prove this is a tropical cyclone:
• steep pressure gradient/isobars are close together
• eye of the tropical cyclone is indicated
• extremely low pressure at the centre 988hPa
• very dense cloud mass with bands of clouds swirling towards the centre of the storm
• tropical cyclone symbol. (Any 3) (6)

2.1.4 (a) The air is circulating in a clockwise direction. (2)
(b) Coriolis force is associated with this movement of air circulation. (2)

2.1.5 (a) The tropical cyclone could remain stationary for a few days because of the position of the South Indian High (blocking).
It could move inland, but would soon dissipate as its energy source would be cut off.
Could move to the south east past the bottom of Madagascar and die out at sea. (Allow for reasonable prediction) (2)
(b) • Impacts of severe weather on the people and the environment
• Precautions that could be taken to reduce the risks associated with tropical cyclones.

Impacts of severe weather on the people
• Infrastructure damage – bridges washed away
• Evacuate homes – could be swept away – loss of possessions
• Cling to tree until rescued

Impacts of severe weather on the environment
• Flooding – destroys crops
• Deposits silt on land – infertile
• Wide scale erosion from wash aways
• Animals taken to safety

Weather experienced
• Torrential rain/heavy rain (rain (1))
• Gale force winds/strong winds (winds (1))
• Thunderstorms

Impacts of tropical cyclones on a country such as Mozambique
Must cover 4 areas, then any other 2 (can only get 10 if not a mind map)

Precautions that could be taken to reduce the risks associated with tropical cyclones.
• Build away from low-lying coastal areas
• Build strong, sturdy structures
• Have good warning systems in place so that people can evacuate
• Be prepared to board up windows and to put sandbags out to prevent excessive flooding
• Move to a secure area – food, water and medical care are available
• Flood walls

Any (2 × 2) (12)
2.2 2.2.1 The movement of weathered material downslope under the influence of gravity.

2.2.2 Types of mass movement in:
Photograph 4 – rockfalls/rock avalanche/rock slide/rock face collapse
Photograph 5 – slumping or landslip/landslide OR soil creep

2.2.3

<table>
<thead>
<tr>
<th>Rate of movement</th>
<th>Photograph 4</th>
<th>Photograph 5</th>
<th>Soil creep</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occurs when rocks of varying sizes break off from the parent rock strata because of weathering. Rocks collect at the bottom of the cliff and form a screen or debris slope.</td>
<td>The slumping of debris down a slope, producing a scar at the back of the slope and a lobe of material at the foot of the slope. Can occur in clay areas when clay particles become saturated with water, move quickly down slope.</td>
<td>Gradual downslope movement of the uppermost layer of soil/bound by vegetation/evidence fenced and lampposts</td>
<td></td>
</tr>
<tr>
<td>Explanation of the type of movement</td>
<td>Mechanical weathering Climate – extremes of temperature - Earthquakes and tremors - Human activities – but explain - Weathering - Undercutting and scarp retreat (but not along coast)</td>
<td>Rotational movements which are aided by cattle tracks developing across the slopes. If an impermeable layer of rock is below the soil, it is easy for a slump to occur when wet.</td>
<td>Gravity/slope/ expansion and contraction of soil particles/ alternating dry and wet conditions</td>
</tr>
</tbody>
</table>

2.2.4 • prevent cattle tracks/overgrazing/ do not remove vegetation or ploughing/build anti-erosion walls/plant trees/poles to support soil
• fence off areas badly eroded

2.3 2.3.1

<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>A</td>
<td>3</td>
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<td>B</td>
<td>7</td>
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<td>C</td>
<td>5</td>
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<tr>
<td>D</td>
<td>6</td>
</tr>
<tr>
<td>E</td>
<td>1</td>
</tr>
</tbody>
</table>
2.3.2  
(a) Episodic river flow is experienced by rivers in arid regions/Edaphic (2)
(b) Lag time (hours) for the hydrograph is approximately 1.3-1 hour 20 minutes – 1 hour 30 minutes (2)
(c) Human significance of the lag time
Warning time for people to evacuate/move to high-lying areas
Increased impermeable surfaces in urban areas have lead to decreased lag times (2)
(d) Rivers in arid areas stop flowing soon after the rain storm has ended as the water percolates through the coarse river sand and disappears. There is no base flow in these rivers. High evaporation/high infiltration. (4)
(e) Tourists and campers would avoid camping in a wadi because flash floods could occur. Could also be very cold at night (frost pocket). Katabatic and anabatic air flow/cannot escape because of steep sides (4)

2.4  
**The source of heat in an urban environment**
- Tarmac surfaces – many freeways
- Too many vehicles – traffic congestion on freeways
- Building materials
  - buildings – high rise – absorb heat during day
  - pavements
- Heating from combustion processes – factories, furnaces, bakeries, air-conditioners
- No vegetation or water to reduce temperatures through evaporation

**The impact of increased city temperatures on the urban microclimate**
- Smog – toxic and poor visibility
- Heat island effect/heat bubble leads to trapping of the pollutants especially at night
- Less snow and frost
- Increased rainfall

**Sustainable strategies to reduce increasing city temperatures.**
- Green belts – Establish more parks and green belts
- No private transport in urban centre
- Green methods to produce electricity for air conditioners – solar power
- Filters on industrial chimneys
- Promotion of public transport to cut down on the use of private vehicles
- Strict anti-pollution laws
- CFC – energy saving light bulbs
- Eco-friendly building designs and materials
- Plant more street trees and inner city gardens
- Roof gardens – absorb the heat
- Build new towns

Must cover all 3 points (6 marks) – 5 other points (10 marks)/cannot get 16 if headings/structure is not used (16)

100 marks
QUESTION 3

3.1 3.1.1 A    (2)
3.1.2 C   (2)
3.1.3 B    (2)
3.1.4 D    (2)
3.1.5 C    (2)

3.2 3.2.1 A heat wave is a prolonged period/ + 24 hours of excessively hot weather. (2)
3.2.2 FOUR conditions:
   • Temperature: 36 °C (accept if no degree symbol shown)
   • Dew Point Temperature: 8 °C
   • Relative Humidity: Low
   • Wind direction: NNW/NVV
   • Wind speed: 5 knots
   • Air pressure: 1014 hPa (accept 1014 – 1019 hPa)
   • Cloud cover – clear Any 4 (4)
3.2.3 Berg winds (2)
3.2.4 THREE conditions:
   • Movement of cold front across interior/cold front/approaching/ winter
   • Presence of anti-cyclonic conditions over the interior/also called Kalahari HP/interior high/continental high
   • The presence of a coastal low (show position)
   • A steep pressure gradient between the HP cell and the coastal low/imply/PGF (6)
3.2.5 Temperatures dropped due to passing mid-latitude cyclone, winds backed (changed), air pressure dropped, possible instability and rain, humidity increased, increased cloud cover. (4)
3.2.6

1 mark for shape + cold front
1 mark for cloud of not named

1 mark for shape

+ cold front

1 mark for cloud

of not named
3.2.7

Heat wave

Economic

- Veld fires, crop loss, early bud break, energy spike (air conditioners), animals die, low productivity

Social

- Health (heatstroke), depression, discomfort, dehydration, human activity curbed

- Monitoring, setting up FPAs (Fire Protection Agencies), warnings, money from government

- Remain hydrated, stay indoors, adjust working hours (siestas), cancel sport at schools, wear hats, air conditioning

3.3 3.3.1

(a) mesa
(b) conical hill
(c) dolerite
(d) sheetwash/rockfalls
(e) pediment/cliff

3.3.2

B – Free face/Scarp
C – Talus/Scree/Debris slope

3.3.3

1 mark flat top
1 mark steep slope
1 mark gentle slope
1 mark height

3.3.4

(a) Gulley erosion also called donga erosion, is the process resulting from water flowing in channels removing a large percentage of soil. Gulley erosion occurs when runoff water accumulates and then flows in narrow channels/rain eroded gulley.

(b) THREE factors:
- Poor farming methods/excessive grazing and over ploughing of the land
- Deforestation
- Uncontrolled veld fires
- Development of settlements on the slope
- Road construction or quarrying at the foot of the slope
- Animal tracks/footpaths/ frequent rainfall
3.4 3.4.1  (a) Elbow of capture/elbow/knickpoint/ point of capture  
(b) Misfit stream/beheaded stream/pirated stream/captured stream/ dry river bed  

3.4.2 TWO reasons why the Orange River captured the Karoo River:  
• had more water/greater discharge  
• had more erosive energy  
• was flowing on softer rock/weaker strata  
• was flowing down a steeper gradient  
• received more rainfall  
• rejuvenation  
• headword erosion  

3.4.3 Abstraction occurred and the position of the watershed changed. The orange/Kalahari River has captured the waters of the Karoo River/continued capturing.  

3.4.4 Alluvial diamonds used to get deposited at the mouth of the once Karoo river. 'Only the Orange-Vaal river system could have carried diamonds to the coast' from kimberlites in the interior as the original source of diamonds is not along the coast. Mention that Olifants River carried diamonds to coast hence as far as south, before capturing took place. Now Orange River, after capturing, carried diamonds to coast which is further north.  

3.4.5 Example of natural and constructed knick points  
• Natural: Augrabies Falls  
• Constructed: Boegoeberg Dam, Van der Kloof dam, Gariep dam, weirs  

Changes in the longitudinal profile and channel characteristics from source to mouth  
• The longitudinal profile starts off very steep at the Maloti Mountains and follows a fairly graded profile to the Augrabies Falls/follows a concave slope. Dam construction has resulted in the river becoming undergraded. Directly downstream of the Falls it is steep and then it follows a gentler gradient to the Atlantic Ocean (The Augrabies Falls may move upstream – profile may become graded but the constructed knick points will remain, so profile not likely to change here)  
• Channel shape of the river will change from steep V-shaped valleys to wider U-shape, from more erosive features to more depositional features, less to greater amounts of water, higher friction index to a lower friction index, larger load to a lower load, turbulent to laminar flow.  

Acknowledgement of dams and waterfalls mentioned without naming them:  
Must mention:  
1 natural knick point  
1 mad-made knick point  
Hence min. 4 marks
The importance to river rafters
• Rafters need to know where rapids and waterfalls are as these can be potentially dangerous and they may need to portage.
• Rafters need to know where the velocity/discharge is likely to be greater and this can be determined from the profile.
• Dams are temporary base levels so the flow of the river stops for a while and rafters will need to paddle more.
• Also need to know where the portage points are.

Must mention:
1 importance to river rafters
Hence min. 2 marks

± (add) 2 marks for sub sections

QUESTION 4

4.4 4.1.1 (a) town (2)
(b) small (2)
(c) small (2)
(d) service centre (2)
(e) tertiary sector (2)

4.1.2 (a) Site factors
river close by for water; but not on river banks – dry point site, i.e. off flood plan
sheltered by mountains from winds
flat area – easy to build and farm
fertile soil – thriving farming area
water furrow
Any 2 factors (4)

Situation factors
foot of the Swartberg Mountains
Close to: Oudtshoorn 70 km and Mossel Bay 153 km → only town names (2) with km (2)
In the Karoo
Any 2 factors (4)

4.1.3 (a) linear pattern/shape (T-junction) (2)
(b) Developed along the river – with the agricultural land adjacent. Early settlers were farmers and needed water in the dry Karoo. (4)

4.1.4 Any feasible reasons – must flow.
1 Fewer people employed in agriculture → loss of income
2 Less demand for services and poor services offered → movement of people away from small towns
3 Change in age sex ratio → fewer babies born → reduction in size of population
4 Less money spent → closure of services/abandoned houses.
5 Declining economy – means that people start to be retrenched leads to point 1.

Not redrawn diagram – max. 8 – must be a sequence

100 marks
4.1.5 Start annual festivals such as an Olive Festival
Bed and Breakfast places in the many old Karoo homes – which look large and stately
Historical tours of the town/tourism
Markets to sell crafts and fresh produce
Farming – visits to farms and buy farm produce at the farm, e.g. wine and grapes; olives; sun-dried fruit.
Environment – bird watching, hiking, clear, fresh air, peace and quiet – Swartberg Mountains/Eco-tourism
Biking and 4 × 4 trails in the Swartberg
RDP housing
Restaurant (1)/wedding/conference venue (2)
Improve services, urban renewal/industrial development zone (2)
NB: only have to list
Any 4 points (8)

4.2 4.2.1 What is an IDZ? (2)
A development zone which links nodes in a spatial development; to promote economic growth and job opportunities, e.g. Coega Development Zone; Pinetown Development Zone.

4.2.2 FIVE industrial location factors that favour the development of an IDZ, such as Coega:
Harbour – there are two harbours in close proximity – for export of commodities
A good infrastructure of freeways and railways for transport of materials and goods to the harbours/airport
Availability of water – Swartkops River in PE and the Coega River. Also water from the Orange River Project if shortage occurs
Electricity supply – ESKOM. As well as the development of a solar photovoltaic cell farm/wind farm
Labour – abundant supply in E Cape
Flat land – easy for infrastructural development; both roads and buildings
NB: can only be industrial
Outline list of single words = 1 mark
(Any 5 factors) (10)

4.2.3 The agro-processing industry important to the economy and people of Eastern Cape as it uses the resources produced locally and processes this into finished products for the market. A beneficiation process occurs and the value-added products go to the market. This means more employment and income for the local inhabitants. Development skills/Multiplier Effect (4)

4.2.4 It is important to provide more employment opportunities in Eastern Cape as it is one of the poorest provinces and many people are unemployed. More income and employment also increases the purchasing power of the people and the markets will then grow. Was a homeland/decrease in crime.
In the long term this leads to more economic development in the province. (4)

4.3 4.3.1 (a) 4 000 – 4 450 million cubic metres
Must be less than 4 500 million
(b) 5 000 million cubic metres (5 billion)

4.3.2 An exponential curve which is rapidly increasing. The demand will outweigh the supply totally by 2012. (2)
4.3.3 domestic users (home; school; municipality)
agricultural sector
mining
industrial
electricity – cooling
recreation – golf course
construction
business
NB: single marks only

4.3.4 Lesotho has provided the shortfall since the completion of the LHWP. This supplements the water in the Vaal Dam
Lesotho earns revenue from this.
Max (2) reliable guaranteed/amount (2)

4.3.5 The Vaal Dam has always relied on the firm yield from the catchment area of the Vaal River, most rivers rise along the escarpment edge – higher rainfall areas.
KZN water has been supplied for a long time and has a high runoff which would otherwise be lost. All this water is guaranteed.

4.4 4.4.1 An inter-basin transfer scheme – water is transferred from one drainage basin into another basin. This is usually from an area of high rainfall and high runoff to an area which receives a lower rainfall and has a huge demand on the water resources.

4.4.2 TWO schemes that currently supplement the Vaal Dam's water reserves are Lesotho Highlands Water Project and the Tugela-Vaal scheme.
Just 'Lesotho' = 1 mark

4.4.3 Importance of water-transfer schemes (should look at 2 schemes)
Example: Tugela Vaal scheme and the Lesotho highlands water project:
Gauteng has a large demand for water, which cannot be supplied by the Vaal River system itself. The transfer schemes: TuVa and LHWP divert water from the main dam to a holding dam for release into tributaries of the Vaal River.
In this process hydroelectric power is generated.
The province/country supplying the water benefits from payments from Rand Water. The water is not lost as runoff into the ocean.
Hydroelectric power is generated.
Job creation, especially during construction associated improved infrastructure.

Possible negative aspects – loss of good farm land and displacement of people when building the project. People have been adequately compensated. Environmental impact. Expense.
The benefits gained by the province/country are not always passed onto the general population e.g. in Lesotho, many people in the remote areas are still without running water and electricity.
Benefits of long-term water management to the South African economy

Africa is a water stressed/scarce continent. It is important to plan ahead and conserve water for the future. An example of long-term water management may be dam building, other examples may be:

- Desalination of water at coastal towns/cities: expensive start-up costs, expensive but viable
- Less wasteful irrigation practices (e.g. late afternoon irrigation when evaporation rates are high)
- Prevention of water pollution – especially agricultural and industrial (fertilisers, silt, toxic metals, litter, pesticides – degrade water quality)
- Reuse of grey water → more water available
- More inter-basin transfer schemes
- Water conservation: re-use of treated water. Infrastructure is collapsing in many municipalities
- Groundwater usage – greater monitoring and awareness of over-extraction from boreholes
- Management of entire catchment systems
- DWAF (Department of Water Affairs) and WFW (Working for Water) – removal of alien invasive species
- Urban growth
- Economic growth → development
- Increased population
- Unreliable rainfall
- Impact of H P

(4 × 2 = 8)

100 marks

QUESTION 5

5.1  1 B  (2)
     2 D  (2)
     3 F  (2)
     4 E  (2)
     5 C  (2)

5.2  5.2.1 (a) The sphere of influence is the area from which a settlement or business draws its customers. Credited range (1)  (2)
     (b) Hierarchy or ranking of urban places classifies these settlements in terms of the number of services or functions it provides. Also: Relative importance of towns.  (2)

5.2.2 THREE locational factors:
- Demographics of the area
- Traffic flow/route intersections
- Land use of the area – aspects of competition
- Consumer life style – affluence of people  (6)
5.2.3 A correlation/link exists between the distribution of McDonalds outlets and Central Place Theory.

- An opinion must be expressed: agree/disagree
- Central Place Theory places settlements to minimise the range so there is little overlap. As would McDonalds locate outlets – decrease competition
- Central Place Theory ranks settlements and McDonald's outlets use a similar approach, locating more outlets in larger settlements (reference to Table 1)

Credit given to understanding of CPT

5.3

5.3.1 An efficient – sustainable – smart city is one where the resources in the urban environment are not depleted or destroyed – aspects related to conservation of resources.

5.3.2 FIVE urban issues:

- Urban blight, physical deterioration of an urban area
- Urban sprawl, the process that takes place when the urban area expands into the surrounding rural areas
- Crime, more common in urban areas where employment demands are not met
- Congestion, traffic congestion increases in areas which have experienced rapid growth and road networks cannot cope
- Pollution, both air, water and noise – exacerbated when located in a valley
- Informal housing where structures are built from any available material and services are not available
- Informal sector – case congestion/related to crime: intersections

5.3.3 Ways to reduce urban energy and water consumption

- Use of renewable energy such as solar power/solar films (photovoltaic sheets on north facing buildings in SH)/wave power and underwater turbines
- High efficiency windows (double glazing) so heating and cooling is reduced
- Green roofs insulate building against heat and cold
- White rooftops, high albedo, reflecting heat and lowering a building's cooling costs
- Low-flow appliances such as water-saving toilets and shower heads can save millions of litres of water
- Underground utilities can reduce evaporation and water leakages
- Satellite irrigation can reduce water consumption by controlling timing on irrigation of parks

Ways to reduce urban waste and emissions

- Three-bin recycling requiring business and homes to separate trash, recyclables and compost/organic waste
- Vertical farms and recycling grey water
- Carbon sequestering concrete can reduce greenhouse gas emissions

Ways to make it easier to get around

- Public transport such as hybrid taxis will reduce emissions and help congestion
- Underground transport such as the Gautrain
- Bike racks and lanes will encourage people to ride instead of drive
- Congestion pricing such as toll roads (Gauteng e-toll)

Emphasis on expanding on points used in source material
5.4 5.4.1 Globalisation is when people, ideas and economic activities in previously relatively separated parts of the world become interconnected, cultures. (2)

5.4.2 (a) Walmart may provide employment in stores, distribution OR it can reduce employment by importing cheaper goods and thereby reducing local manufacturing of goods. (4)

(b) Selling cheaper goods may result in loss of sales for the informal sector, loss of market for the informal sector.
Credit given if informal sector explained (1) (4)

5.4.3

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Improve economic opportunities and increase in trading partners</td>
<td>• Employees in SA Walmart are vulnerable to economic changes in another country</td>
</tr>
<tr>
<td>• Improved balance of payments</td>
<td>• Reduction in jobs in local retail store</td>
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<tr>
<td>• Reduced prices for consumers</td>
<td>• Move away from local suppliers due to lack of competitiveness</td>
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<tr>
<td>• Short term reduction in price hikes and inflation</td>
<td>• Monopolistic behaviour</td>
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<td></td>
<td>• Labour disputes increase as local unions become ineffective</td>
</tr>
</tbody>
</table>

• No maximum mark if not tabulated. No table, all points mentions 6 marks
• Opposite factors/negatives to Advantages not accepted.

5.4.4 Factors that influence local business in a global market (Any 2)

Concepts explained
• Currency fluctuation/exchange rates
• Political upheaval in foreign countries/natural disasters, e.g. Japan earthquakes/floods in Thailand
• International trade agreements
• Individual country import/export policies
• Labour conditions/foreign unions
• Local market, suppliers not reaching deadlines
• Consumer trends
• China as a global competitor (4)

5.5 5.5.1 (a) Gross domestic product (GDP) is the total value of goods and services produced in a country in one year. (2)

(b) Manufacturing is when a product is made from raw materials, can include beneficiation and assembling of new goods. (2)

5.5.2 • Finance (21%) (do not need to give %)
• Government (16%) (4)

5.5.3 (a) Secondary
(b) Tertiary
(c) Primary
(d) Tertiary

5.5.4 A trade deficit occurs when a country imports more than it exports/its balance of trade is negative/less/debt incurred economy of SA
Concepts/points explain or expanded on (2)
5.5.5 FOUR strategies:

- Improve service and export industry
- Remove trade barriers/change tariff structure
- Reduce labour disputes/skill labour base
- Reduce corruption and internal political influences
- Improve infrastructure (as mentioned in new budget)
- Beneficiation
- Become more competitive/improved technology
- Creating a unique brand (Proudly SA)

Plus any other geographically relevant (suggestion/response/point/idea …)  

100 marks

Total: 300 marks