CLIMATE AND WEATHER

MARKING GUIDELINES

Nov 2017

1.1 1.1.1 F/Summer (1)

1.1.2 H/Dew point (1)

1.1.3 D/Kalahari High (1)

1.1.4 E/Cut-off-low (1)

1.1.5 G/Coastal low (1)

1.1.6 C/Line thunderstorms (1)

1.1.7 A/Ridging (1)

1.1.8 B/Saddle (1) (8 x 1) (8)

Nov 2017

2.1 2.1.1 D (1)

2.1.2 B (1)

2.1.3 A (1)

2.1.4 D (1)

2.1.5 A (1)

2.1.6 C (1)

2.1.7 B (1) (7 x 1) (7)

Nov 2017

1.3 1.3.1 Isobars closely spaced together (1)
Steep pressure gradient (1)
Station models show high wind speed (1)
[ANY ONE] (1 x 1) (1)

1.3.2 Temperatures will decrease/drop (1)

Air pressure will increase/rise (1) (2 x 1) (2)

1.3.3 Cold air undercuts the warm air, forcing it to rise rapidly and (very) high (2)

Steep gradient of the cold front forces warm air to rise (very) high (2)

[ANY ONE] (1 x 2) (2)

1.3.4 Storm surges/high waves will make the sea rough/dangerous (2)

Coastal flooding is likely to occur (2)

Possibility of sandstorms (2)

Strong winds (2)

Possibility of thunder and lightning/hail (2)

Heavy rain (2)

Strong possibility of injury OR loss of life for people (2)

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

1.3.5 Residents should stay indoors/delay travelling/seek shelter (2)

People living in low-lying areas should vacate their homes and seek shelter on higher ground (2)

NGOs and shelters can provide homeless people with shelter/blankets (2)

People can stock up on food/water/candles (2) Stock up on medical supplies (2)

People engaged in livestock farming make provisions to shelter livestock (2)

Secure belongings/property (2)

Boarding up windows (2)

Placing sandbags (2)

Maintenance of electricity connections (2)

Maintain drainage systems (2)

Secure boats and vessels in harbours (2)

Listen to media broadcasts to prepare for storm (2) Having generators on standby (2)

Evacuation plans in place (2)

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

Nov 2017

1.4 1.4.1 (a) 18°C [Unit must be indicated] (1 x 1) (1)

(b) 24h00/0h00/12 midnight – 00h30/30 minutes past midnight (1 x 1) (1)

1.4.2 48°C (1) [Unit must be indicated] (1 x 1) (1)

1.4.3 30°C (2) (48°C - 18°C) [Unit must be indicated] (1 x 2) (2)

1.4.4 With the onset of the bergwind, temperatures are still low (2),

From 5am the temperatures rise with the bergwind reaching Vredendal (2) Descending air warms up (2)

The air warms up at the dry adiabatic lapse rate/1°C per 100m through subsidence (2)

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

1.4.5 **PRECAUTIONARY MEASURES**

Fire fighters/emergency services are deployed earlier/on standby in the fields to detect fires (2)

Inhabitants should have fire extinguishers nearby (2) Prepare firebreaks/controlled fires (2)

Construct lookout towers (2)

Earlier warning (TV, radio, newspapers) provides time for inhabitants to secure liquids in preparation for dehydration to humans due to the increased temperatures (2)

Farmers are able to fill watering points to ensure hydration of livestock (2) Farmers are able to place crop covers to reduce the impact of increased evaporation rates and prevent damage to crops (2)

Irrigate fields to keep vegetation wet (2)

Move livestock to shaded areas (2)

Move livestock to protected areas (2) Protect fodder reserves (2)

Planned operation of emergency services that will be required for inhabitants who may be susceptible to heat strokes and heat disorders (2)

Advise vulnerable people (elderly, young) to stay indoors (2)

Cancel outdoor activities (2)

Evacuation plans can be put in place (2) Take out insurance (2)

[ANY FOUR] (4 x 2) (8)

Nov 2017

2.3 2.3.1 A (1) (1 x 1) (1)

2.3.2 Air circulates in an anticlockwise (in the Northern Hemisphere) (2)
Direction of movement is North West (2)
Taiwan is in the Northern Hemisphere/North of the Equator (2)
[ANY ONE] (1 x 2) (2)

2.3.3 The name of this typhoon is Meranti (the 13th typhoon that season) (1 x 2) (2)

2.3.4 Storm surges cause coastal flooding (2)
Along the coastline which puts people's lives at risk/prevents loss of lives (2)
Heavy down pours of rain will result in flooding (2)
Low-lying areas most prone to flooding which puts peoples' lives at risk (2)
Minimises damage and injuries (2)
These are destructive storms associated with strong winds (2)
Strong winds cause flying debris (2)
[ANY ONE] (1 x 2) (2)

2.3.5 Development of a steeper pressure gradient (2) Stronger or higher wind speeds (2)
High sea surface temperatures will increase upliftment and cooling of air (2) Increased latent heating as condensation increases which provides more energy for the typhoon (2)
Continuous large supply of moisture (2)
Rapid rising of warm moist air intensifies the low pressure centre (2)
Intense atmospheric instability (2)
Increase in upper air divergence (2)
[ANY TWO] (2 x 2) (4)

2.3.6 A large amount of rainfall would cause mudslides or landslides (2) Mudslides/landslides destroy farmlands (2)
Mudslides/landslides destroy settlements (2)
Rock falls will result in a loss of life and damage to property (2)
Will result in bridges being washed away and reducing accessibility (2) The regions inability to communicate will reduce the accessibility of services (2)
Roads that are washed away will leave communities inaccessible to emergency services (2)

Interruption of electricity supply (2)
Flooding of mountain streams will increase surface run-off and destroy valuable crops and increased stock losses (2)
Heavy rainfall will damage homes and leave people homeless (2)

Greater dependence on government services e.g. social/health (2)

Soil erosion/washed away fertile soil reduces the level of food security in the region (2)

Soil erosion silts up dams (2)

Disruption of vegetation/ecosystems/loss of biodiversity (2)

Holiday resorts are destroyed (2)

Reduce the amount of tourism in the area (2)

[May include positive impacts]

Major source of water for rivers/dams (2)

Provides water for irrigation/livestock/domestic/industrial use (2)

Renewal/upgrading of destroyed infrastructure (2)

Flushes out pollution/improves the water quality (2)

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

Nov 2017

2.4 2.4.1 A (1) (1 x 1) (1)

2.4.2 Rising warm air (convection currents) has a greater vertical dimension in A (2)

No evidence of subsiding air (2)

Inversion layer not visible in A (2) Cold air is high above city (2)

A low lying inversion layer is evident at B (2)

Warm air is blocked from rising at B (2)

[ANY ONE] (1 x 2) (2)

2.4.3 Higher concentration of pollution trapped close to the earth's surface (2)

Pollution trapped close to the ground mixes with fog/ground based cloud (2)

(1 x 2) (2)

2.4.4 Convection/rising air disperses pollution to upper levels of the atmosphere (2)

No inversion layer close to surface to trap pollution (2)

[ANY ONE] (1 x 2) (2)

2.4.5 **SUSTAINABLE SOLUTIONS TO LIMIT SMOG FORMATION IN CITY**

Roof top gardens/green lungs (2)

More natural environments e.g. green belts within the city limits (2)

Taller chimneys to release pollution higher in the atmosphere (2)

Regulate industrial activity at night to reduce the concentration of emissions within the CDB (2)

Bylaws/restrictions to carbon emissions by various pollution producing industries in the city (2)

Penalties/Fines for exceeding smog restrictions by industries located closer to the city (2)

More decentralised industrial growth points away from the CBD (2)

Filters on chimneys to reduce toxicity of emissions (2)

Use of green/clean source of energy (2)

Car-pooling/lift clubs (2)

Filters/catalytic converters on motor vehicle exhaust pipes (2)

Hybrid/solar powered/electric/battery-operated vehicles (2)

Improved public transport/dedicated bus lanes will result in less private vehicles within the limits of the CBD (2) Park-and-ride facilities (2)

Promote use of bicycles in city centre (2)

Pedestrianise the city centre (2)

Increased public awareness/education (2)

[ANY FOUR] (4 x 2) (8)

Nov 2018

1.1 1.1.1 north (1)

1.1.2 South Indian (1)

1.1.3 ridge (1)

1.1.4 1016 hPa (1)

1.1.5 10 knots (1)

1.1.6 north west (1)

1.1.7 Subtropical High (1) (7 x 1) (7)

Nov 2018

2.1 2.1.1 Eye (1)

2.1.2 Low (1)

2.1.3 Heavy (1)

2.1.4 Updraughts (1)

2.1.5 Diverging (1)

2.1.6 High (1)

2.1.7 Pressure (1)

2.1.8 Wind Speed (1) (8 x 1) (8)

Nov 2018

1.3.1 Mid Latitude cyclone (1 x 1) (1)

1.3.2 It is further east/south/south-east (2)

Movement is eastwards, therefore **A** is ahead of **B** and **C** (2)

[ANY ONE] (1 x 2) (2)

1.3.3 Less moisture causes less/no rainfall (2)

Warm air from the warm sector is uplifted slowly and more gently (gentle gradient) (creating stratus/altostratus/cirrus and cirrostratus clouds, and causes no rain) (2)

Softer rainfall from nimbostratus clouds (2)

[ANY ONE] (1 x 2) (2)

1.3.4 The cold front catches up to the warm front/two fronts merge (2)

Warm air is displaced off the earth's surface (occluded)/Occlusion has taken place (2)

Warm and cold air masses move horizontally past one another again (2)

[ANY ONE] (1 x 2) (2)

1.3.5 **<u>Once passed over</u>**

Lower temperatures as a result of cold air behind the cold front (2)

Strong winds due to strong pressure gradient (2)

West to south westerly winds/backing as a result of clockwise spiralling air (2)

Dense cloud cover due to strong uplift of warm air (2)

Cumulonimbus clouds will result in heavy rainfall/thunderstorms/hail (2) Atmospheric pressure will be higher due to the cold, dense air following the cold front (2)

Decreasing humidity due to cold air being more dense (2)

Snowfalls may occur as dewpoint temperature is reached below freezing point (2)

OR

While approaching

Fairly high temperatures will remain as one is still in the warm sector (2)

Gentle to moderate winds as the pressure gradient is weak (2)

Northwest to westerly winds as a result of the clockwise spiralling of air (2) Low stratus clouds with clear patches as a result of the slow rising air (2)

Stratus clouds could result in scattered rain (2)

Atmospheric pressure will be low as a result of the warm, less dense air (2)

Humidity will be relatively low as warm air is less dense (2)

[ANY FOUR. CREDIT CANDIDATE FOR ANY VALID FACTOR GIVEN]

(4 x 2) (8)

Nov 2018

1.4.1 katabatic wind (1 x 1) (1)

1.4.2 Air temperature increases with height/temperature inversion(1) The highest temperature is found mid-slope (1)

Air temperature is warmer (1)

Temperature is above freezing (1)

[ANY ONE] (1 x 1) (1)

1.4.3 (Temperature) inversion/Valley inversion/Negative lapse rate (1) (1 x 1) (1)

1.4.4 Air temperatures are much lower (2)

Air is heavier and denser (2)

Increased intensity of downward movement of air/Cold air moves down the slope quickly (2)

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

1.4.5 Collection of cold, dense air at the bottom of the valley (2) Warm air is displaced from the valley floor (2)

Frost forms on the valley floor (2)

Gravity causes cold air to drain towards the valley floor (2)

Dew point temperature below freezing point (2)

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

1.4.6 Only frost resistant crops can be planted here/Grow fruit with thick resistant skin, e.g. citrus (2)

Genetically modified seeds adapted for frost conditions (2)

Torches and fire drums (heating systems) to keep air circulating so that temperatures do not drop below 0 °C/anti-frost heating to protect crops (2)

Fans to keep air circulating (2)

Mechanisms to divert subsiding wind (diversion walls) away from crops (2)

Straw in between crops to reduce terrestrial radiation (mulching) (2)

Glass houses (greenhouses) can be built to create an artificial micro-climate for sensitive crops (2)

Cover plants with frost covers (2)

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

Nov 2018 2.3.1

Moisture front (1)

2.3.2 A band of cloud stretching from the NW to the SE of the country (2)

(Cumulonimbus) clouds arranged in a line from the NW to the SE (2)

Converging air masses over the interior of the country (2)

Presence of the moisture front (2)

[ANY ONE] (1 x 2) (2)

2.3.3 Low pressures over the land during summer, draw in moisture off the oceans onto the land (2)

Inversion layer above escarpment in summer allows inflow of moist air (2) Increased convergence of air masses from well-developed high-pressure cells along the coast (2)

Weakened Kalahari High Pressure Cell facilitates greater vertical rising of air above the interior (2)

Presence of trough over the interior during summer (2)

[ANY ONE] (1 x 2) (2)

2.3.4 Warm moist air from above the Indian Ocean/Warm Mozambique/Warm Agulhas Current (2)

Warm moist tropical air diverging from the South Indian High Pressure Cell (2)

Warm moist air from the North-easterly winds (2)

[ANY ONE] (1 x 2) (2)

2.3.5 Warm moist air from the east (more moisture) reaches the interior (2)

Cold dry dense air from the west forces warm moist less dense air to rise (2)

Air on the eastern side is more unstable (2)

Large scale condensation results in dense cloud formation (2)

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

2.3.6 Has a longer duration (2)

They cover a greater/widespread area (2)

Damage is more widespread (2)

Continuous feeding of moisture from the ocean (2)

Constant formation of cumulonimbus clouds along the moisture front (2)

Stronger upliftment/rapid rising and condensation along the moisture front (2)

Torrential or heavy rainfall and/or hail (2)

Occurs at any time of day (2)

OR

Has a much shorter duration (2)

Isolated thunderstorms are over a small area (2)

Isolated thunderstorms will result in damage that is not widespread (2)

Isolated thunderstorms do not have a continuous source of moisture (2)

Only occurs during late afternoon (2)

[ANY TWO. CANNOT REFER TO THE SAME FACTOR ON BOTH SIDES]

(2 x 2) (4)

Nov 2018

2.4.1 An accumulation of dust, soot and smoke (pollution) particles over the city (2)

[CONCEPT] (1 x 2) (2)

2.4.2 Urban areas produce more pollution/combustion released by cars, industries and other activities/More human activities (2) (1 x 2) (2)

2.4.3 During the night subsidence is stronger/trapped closer to the ground/

inversion layer is closer to the surface at night (2)

Less activity resulting in heat generation to lift pollution dome (2)

Pollution covers a smaller area (2)

Less convection/thermal currents to distribute pollution at night (2)

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

2.4.4 Soot accumulation on buildings results in more cleaning services needed (2) Results in acid rain which results in peeling of paint of buildings (2) Buildings must be painted more often (2)

Concrete surfaces become pitted (holes) and must be maintained/renovated more frequently (2)

Metal structures such as metal window frames/air conditioners become corroded because of the acid rain/renovated more often (2)

Replacing damaged material with good quality/durable material is costly (2)

Regular replacement/purchase of air conditioner filters (2)

More regular painting of road markings as acid rain makes it peel easier (2)

High pollution results in higher rainfall and can cause flood damage (2)

Damaged plants in gardens to be replaced (2)

Water reservoirs/dams become polluted and money spent to purify water (2)

[ANY FOUR] (4 x 2) (8)

Nov 2019

1.1 1.1.1 thermal belt (1)

1.1.2 smog (1)

1.1.3 aspect (1)

1.1.4 radiation fog (1)

1.1.5 frost (1)

1.1.6 katabatic (1)

1.1.7 anabatic (1) (7 x 1) (7)

Nov 2019

2.1 2.1.1 C (1)

2.1.2 C (1)

2.1.3 A (1)

2.1.4 C (1)

2.1.5 A (1)

2.1.6 B (1)

2.1.7 B (1)

2.1.8 B (1) (8 x 1) (8)

Nov 2019

1.3 1.3.1 a category 3 hurricane (1) (1 x 1) (1)

1.3.2 Sea surface temperatures of 26,5°C and above (1)

Unstable atmospheric conditions (1)

Originates between 5º and 25º north and south (1)

Coriolis force (1)

Calm conditions (light variable winds) over the ocean surface (1) Little surface friction (1)

Surface air convergence (1)

Extensive upper air divergence of winds aloft (1)

Rapid large scale evaporation of moisture over ocean/High humidity (1)

Release of latent heat (1)

[ANY ONE] (1 x 1) (1)

1.3.3 120 (km/h) (1)

(Accept 120km/h to 149km/h) (1 x 1) (1)

1.3.4 Pressure gradient decreases when you move away from the eye (2)

Isobars are further apart as you move away from the eye (2)

Pull of the vortex becomes weaker (2)

[ANY ONE] (1 x 2) (2)

1.3.5 Circulation and forward movement in the same direction (2)

Intense winds in the cyclone combines with the force of the entire cyclone moving forward/westwards into the left-hand quadrant (2)

Wind shear (a sudden change in wind direction) at lower altitudes intensifies this quadrant (2)

[ANY ONE] (1 x 2) (2)

1.3.6 Storm surges due to strong winds will cause floods (2) Damage to property because of flooding/strong winds (2)

Loss of life (2)

It causes injury to people/animals (2)

It will cause coastal erosion (2)

Destruction of infrastructure (accept examples) (2)

Ecosystems are disrupted (2)

Loss of biodiversity (2)

Negative impact on tourism/Outdoor activities (2)

Negative impact on the fishing industry (2)

Loss of agricultural production/Food insecurity (2)

Costly to repair damages/medical and insurance claims (2)

Contamination of water/Water borne diseases (2)

Aesthetic beauty of coastal area destroyed (2)

[ANY FOUR] (4 x 2) (8)

Nov 2019

1.4 1.4.1 Winter (1 x 1) (1)

1.4.2 The presence of the Continental/Kalahari high pressure (1)

Low temperatures (14ºC) over the interior (1)

Movement of air from the Kalahari high towards the coast (1)

Off-shore winds originating from the Kalahari high pressure (1)

[Warm offshore wind not accepted] **[ANY TWO]**

1.4.3 (a) As air descends, moisture evaporates (2)

Very little moisture carried from the interior (2)

They originate over the land (interior of the country) (2)

[ANY ONE] (1 x 2) (2)

(b) Air heats up (adiabatically) as it descends (2)

Temperature of air increases by 1°C/100m as it descends (2)

[ANY ONE] (1 x 2) (2)

(c) Will result in a rapid/strong/increase in wind speed (2)

Will result in air heating up quickly (2) (2 x 2) (4)

1.4.4 Berg winds dry out the vegetation/crops which makes the vegetation/crops flammable (2)

There is a possibility that fire can spread quickly and cause destruction over large areas e.g. houses burned down (2)

Outbreaks of fire could harm people, e.g. skin burns and smoke inhalation/respiratory problems (2)

High temperatures can cause dehydration of the vulnerable like children and the aged (2)

Visibility of motorists is affected and can cause accidents (2)

All emergency personnel are needed for evacuation purposes (2)

[Candidates can link emergency services to the above responses]
[ANY TWO] (2 x 2) (4)

Nov 2019

2.3 2.3.1 Isobars (1) (1 x 1) (1)

2.3.2 Low pressure/Thermal/Heat low over the interior (1)
The date is 28 March (1)
Presence of tropical cyclone (1)
Generally high temperatures over the interior (1) Overcast conditions over the interior (1)
Position of the South Atlantic and South Indian high pressures further south (1)
Clear conditions over the South-western Cape (1)
Thermal low displaced the Kalahari high pressure cell (1)
[ANY TWO] (2 x 1) (2)

2.3.3 Along the coast (1)
From west to east along the coast (1)
South easterly, easterly then north eastward (1)
[ANY ONE] (1 x 1) (1)

2.3.4 (a) Heat/thermal low (1) (1 x 1) (1)

(b) The land surface is intensely heated causing warm air to rise (2)
High evaporation rates (2)
Condensation results in dense cloud cover/heavy rain/thunderstorms (2)
It allows for the pulling of cool, dry air from the western part of the country and warm, moist air from the eastern parts of the country to the interior (2)
It leads to the formation of the moisture boundary/Line thunderstorms occur (2)
[ANY TWO] (2 x 2) (4)

2.3.5 (a) Scattered/ little cloud cover/$\frac{2}{8}$ /$\frac{1}{4}$ indicated (2)
Low temperatures (2)
Off shore winds (2)
[ANY ONE] (1 x 2) (2)

(b) **<u>AIR TEMPERATURE</u>**

Anticlockwise movement of air from the high-pressure cell brings cooler air onto the land (2)

South Atlantic high-pressure ridges over the land feeding in cooler air (2)

WIND DIRECTION

Wind direction is influenced by the anticlockwise movement of air in a high pressure (2)

[BOTH AIR TEMPERATURE AND WIND DIRECTION MUST BE MENTIONED] (2 x 2) (4)

Nov 2019

2.4 2.4.1 B (1) (1 x 1) (1)

2.4.2 Evidence of clouds forming (at A than B) (2)

More vegetation causes more evapo-transpiration (at A than B) (2)

Evaporation of water from the soil (at A than B) (2)

More natural surfaces (at A than B) (2)

[ANY ONE] (1 x 2) (2)

2.4.3 There are more condensation nuclei/hygroscopic nuclei in B (at B than A) (2)

(1 x 2) (2)

2.4.4 Tall buildings cause the sun's rays to be reflected and deflected between the buildings (multiple reflection) (2)

A larger surface area to absorb the sun's heat (2)

[ANY ONE] (1 x 2) (2)

2.4.5 **ARTIFICIAL SURFACES**

Concrete and metals are used in the construction of buildings therefore more heat is retained (2)

Tarred (darker surface) roads are a greater absorber of heat/Low albedo (2) Glass and mirror surfaces of modern building leads to multiple reflections of heat raising the temperature (2)

Taller buildings have a larger surface area that can be heated (2)

Heat is trapped between tall buildings (2)

The storm water drainage systems in urban areas result in less evaporation, less cooling and increased temperatures (2)

URBAN ACTIVITIES

Urban areas have more heat generating activities such as restaurants (2)

Use of appliances like stoves, air conditioners, fridges, etc. generates heat (2)

Industries (light) that produce heat (2)

Vehicles increase the production of pollutants that absorb and retain heat for longer (2)

Building activities like construction generate heat (2)

[ANY FOUR - MUST REFER TO BOTH ARTIFICIAL SURFACES AND URBAN ACTIVITIES]

(4 x 2) (8)

Nov 2020

1.1 1.1.1 A (1)

1.1.2 B (1)

1.1.3 A (1)

1.1.4 A (1)

1.1.5 B (1)

1.1.6 B (1)

1.1.7 B (1) (7 x 1) (7)

Nov 2020

2.1 2.1.1 Low pressure cell (1)

2.1.2 High pressure cell (1)

2.1.3 Low pressure cell (1)

2.1.4 Low pressure cell (1)

2.1.5 High pressure cell (1)

2.1.6 Low pressure cell (1)

2.1.7 High pressure cell (1)

2.1.8 High pressure cel (1) (8 x 1) (8)

Nov 2020

1.3 1.3.1 Cold and warm fronts visible (Cold/Warm front visible) (1)
Presence of an occluded front (1)
Low pressure (less than 1000hPa) (1)
Presence of warm/cold sectors (1)
Mid-latitude cyclone is moving from west to east (as indicated by the symbol of the cold front) (1)
It is where a mid-latitude cyclone should be located in winter (date) (1)
[ANY ONE] (1 x 1) (1)

1.3.2 Convergence (meeting) of cold (dry) polar air and warm (moist) sub-tropical air masses (2)
Frictional drag (disturbances) occurs at the polar front (2)
[ANY ONE] (1 x 2) (2)

1.3.3 It is steered/driven by the westerly winds (2)
Located in the westerly wind belt (2)
Driven by jet streams (2)
[ANY ONE] (1 x 2) (2)

1.3.4 Steep pressure gradient (isobars are close together) (2)
Rapid upliftment of air mass (2)
Presence of cumulonimbus clouds (2)
Backing of wind (2) **[ANY ONE]** (1 x 2) (2)

1.3.5 Cold front moves faster than the warm front (2)
Warm air sector narrows as the cold front undercuts it (2)
The cold front catches up with the warm front (at the apex) (2)
[ANY TWO] (2 x 2) (4)

1.3.6 Increased rainfall fills up dams/rivers/jo-jo tanks which impacts positively on the agricultural sectors (2)
Enables irrigation of winter crops which provides enough food for the local market (2)
More agricultural products (accept examples) available for manufacturing industries/export (2)
Low temperatures ideal for crops that thrive in cold conditions (2)

Cold conditions can kill pests that eat the crops (2)

More infiltration is causing a higher water table therefore ground water increases (2)

Supplies seasonal agricultural jobs (2)

Cleans polluted rivers as it is washed out pollution in river (2)

Improves pasturage for livestock grazing (2)

Soil fertility increases due to alluvium from flooding (2)

Contributes to food production/food security (2)

Availability of water for livestock (2)

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

Nov 2020

1.4 1.4.1 B (1)
Accept Indian Ocean (1)
[ANY ONE] (1 x 1) (1)

1.4.2 Divergence of air from South Atlantic High to the trough of low pressure in the interior (2)

Anticlockwise rotation from South Atlantic High feeds in the cold air (2)

Cold air from above the Atlantic Ocean/Benguela current (2)

Air is dry due to limited evaporation (2)
[ANY ONE] (1 x 2) (2)

1.4.3 Cool dry air from the south west meets warm moist air from the north east (2) Warm air is forced to rise rapidly over colder air and the rising air cools and condenses (cumulonimbus clouds form and thunderstorms occur) (2)

There is rapid rising of warm air along the east of the moisture front (2)

Moisture front covers an extensive linear area (NW to SE) (2)

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

1.4.4 Torrential (Heavy) rainfall can cause extensive flooding (2)

Lightning can cause extensive fires (accept examples) (2) Lightning can cause the death of people and livestock (2)

Hail can cause damage to property (2)

Gale force winds can damage property/infrastructure/crops/ uproot trees (2)

Flooding can lead to loss of human life/disrupt activities (2)

Crops will be destroyed by heavy rainfall (2)

Rainfall can destroy property and infrastructure (accept examples) (2)
There will be widespread soil erosion/loss of fertile soil due to heavy rainfall (accept examples) (2)
Poor visibility due to the heavy rainfall can cause accidents (2)
Ecosystems can be destroyed by flooding (2)
Loss of biodiversity due to destructive nature of the rain (2)
Economic destruction (accept explained examples) (2)
Social destruction (accept explained examples) (2)
Interruption of traffic/lack of visibility due to torrential rain (2)
[ANY FOUR] (4 x 2) (8)

Nov 2020

2.3 2.3.1 Air circulation around cyclone is clockwise (1)
Date (April is late summer in the southern hemisphere) (1)
Mozambique/Mozambique channel/Madagascar/Maputo/Tanzania/Zambia is in the southern hemisphere (1)
It develops over the southern Indian Ocean (1)
[ANY ONE] (1 x 1) (1)

2.3.2 The warm air temperatures above the sea/warm ocean (+26.5°C)
(Mozambique/Agulhas) current generates more evaporation (2)
Mozambique channel located close to the equator (2)
Mozambique channel is in the Indian ocean which is warmer (2)
[ANY ONE] (1 x 2) (2)

2.3.3 Increased moisture which will lead to rapid condensation (2)
Latent heat being released from rapid condensation would provide the energy for the system to move rapidly from **A** to **B** (2)
Wind intensity will change from gale force to hurricane strength because of the wind shear (change in wind speed and direction) (2) Developed from a tropical depression into a tropical cyclone (2)
Eye has formed/intensified because of the decrease in air pressure (2)
Area covered by the eye increased in size (2)
Rainstorms increase as the eye wall and leading/forward quadrant approaches (2)
A is only a storm without an eye, **B** has an eye (2)

Pressure continues to drop as it moves towards **B** (intensified) (2)

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

2.3.4 Source of moisture is reduced as it moves over the land (2)

Friction with the land surface would decrease the wind speed (2)

Moves away from warmer waters/cold dry air enters the system (2)

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

2.3.5 The coastline of Mozambique will be subjected to wind and water erosion which will reshape the coastline (2)

More coastal rocks will become exposed limiting human activities (2)

Strong winds and torrential rain will destroy sand dunes which are essential for ecosystems and biodiversity (destroys natural coastal vegetation) (2) Bay areas along the coastline would become shallower as a result of excess silting and restricts development (2)

Blockage of waterways by sand deposits decreases access to coastlines (2)

The coastline will be steeper and become inaccessible to tourists (2)

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

Nov 2017

1.2	1.2.1	Dendritic	(1)
	1.2.2	Homogeneous geology/uniformly horizontal	(1)
		Rocks of uniform resistance to erosion	(1)
		Horizontal sedimentary or massive igneous	(1)
		(Anyone)	
	1.2.3	Catchment	(1)
	1.2.4	Vertical or downward or down cutting	(1)
	1.2.5	Rapid or waterfall	(1)

	1.2.6	Lower course	(1)
		Old age stage	(1)
		Stage C	(1)
		(Anyone)	
	1.2.7	Sand islands/sand banks	(1)
		Delta	(1)
		(Anyone)	

Nov 2017

2.2	2.2.1	D/River system	(1)
	2.2.2	C/Turbulent	(1)
	2.2.3	B/Deposition	(1)
	2.2.4	A/Permanent base level	(1)
	2.2.5	D/Abstraction	(1)
	2.2.6	D/Misfit stream	(1)
	2.2.7	A/Braided stream	(1)
	2.2.8	B/Periodic	(1)

Nov 2018

1.2	1.2.1	B	(1)
	1.2.2	Rainfall/precipitation	(1)
	1.2.3	Headward erosion/backward erosion	(1)
	1.2.4	A	(1)
	1.2.5	Elbow of capture	(1)
	1.2.6	Wind gap/dry gap	(1)
	1.2.7	Misfit stream	(1)
	1.2.8	B	(1)

Nov 2018

2.2	2.2.1	E (floodplain)	(1)
	2.2.2	G (levees)	(1)
	2.2.3	C (meander)	(1)
	2.2.4	F (oxbow lake)	(1)
	2.2.5	D (braided stream)	(1)
	2.2.6	H (waterfall)	(1)
	2.2.7	B (Delta)	(1)

Nov 2019

1.2	1.2.1	C	(1)
	1.2.2	A	(1)
	1.2.3	C	(1)
	1.2.4	B	(1)
	1.2.5	C	(1)
	1.2.6	D	(1)
	1.2.7	C	(1)
	1.2.8	A	(1)

Nov 2019

2.2	2.2.1	River mouth	(1)
	2.2.2	Ground water	(1)
	2.2.3	Drainage basin	(1)
	2.2.4	River source	(1)
	2.2.5	Water table	(1)
	2.2.6	Surface runoff	(1)
	2.2.7	confluence	(1)

Nov 2020

1.2	1.2.1	I	(1)
	1.2.2	E	(1)
	1.2.3	D	(1)
	1.2.4	G	(1)
	1.2.5	C	(1)
	1.2.6	A	(1)
	1.2.7	B	(1)
	1.2.8	H	(1)

Nov 2020

2.2	2.2.1	D	(1)
	2.2.2	F	(1)
	2.2.3	G	(1)
	2.2.4	E	(1)
	2.2.5	H	(1)
	2.2.6	B	(1)

2.2.7 C (1)

Nov 2017

1.5 1.5.1 The water table is the surface of the crust water zone (2)

The water table is the upper limit/layer of the saturated ground water zone (1)

[concept]

[ANY ONE] (1x1) (1)

1.5.2 a) In A the water table is close to the surface/high (1)

Only a few meters beneath the earth surface/close to the surface (1)

Cuts the surface/river bed (1)

[ANY ONE] (1x1) (1)

b) The vegetation traps water/reduces runoff (2)

Vegetation allows infiltration to occur (2)

Trees create shade, thus less evaporation (2)

Permeable underlying rock promotes infiltration (2)

Gentle gradient promotes infiltration (2)

As infiltration increases so will the water table rise (2)

No artificial surfaces (2)

[ANY ONE] (1x2) (2)

1.5.3 a) The water table has lowered /is deeper/is further below the surface (2)

No longer intersects the earth surface or river bed (2)

[Any One] (1 x2) (2)

b) Artificial (human made) surfaces e.g. concrete are less permeable and result in direct run-off (2)

Drainage systems (storm water drains) carry runoff out of the settlement. (2)

Removal of trees and natural vegetation increases direct run-off (2)

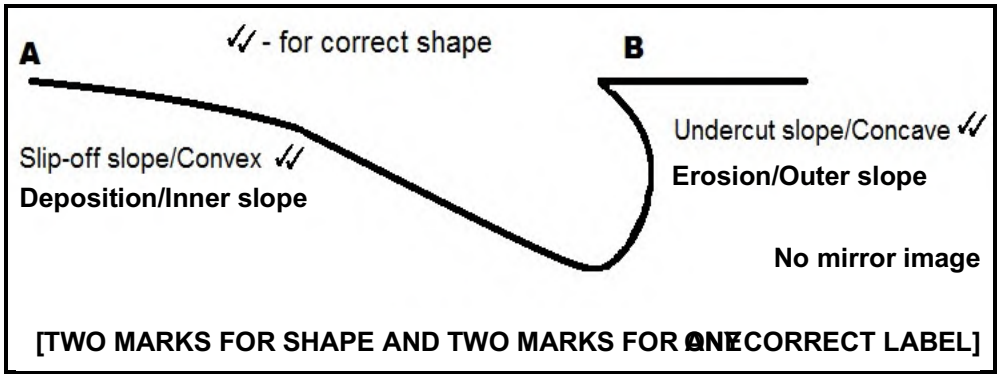
Less infiltration due to more run-off reduces the ground water content and lowers the water table (2)

Industrial or human activities reduces the water table (2)

[Any One] (2x2) (4)

1.5.4	Create more permeable surfaces like cobble and grass	(2)
	Limit channelization of river to allow water to continue to infiltrate	(2)
	Use permeable bricks to build walk ways and pavements	(2)
	Create buffer zones closer to the river to protect the vegetation for infiltration purposes	(2)
	Create more open spaces within the urban environment e.g. green belts that have natural surfaces to increase rates of infiltration	(2)
	Prepare more vegetated environments between buildings e.g. trees and open grass areas that will promote infiltration/afforestation	(2)
	Reduce urban development on flat surfaces so greater infiltration will be promoted there	(2)
	Develop drainage systems that channel treated water back onto open natural environments in the city to increase rates of infiltration	(2)
	Create urban environments with drainage systems that capture direct runoff/rainfall into storm water systems and channel run-off into natural environments in the city	(2)
	[ANY TWO	(2x2) (4)

Nov 2017

1.6	1.6.1	Meandering	(1 x 1) (1)
	1.6.2	Lower/plain	(1 x 1) (1)
	1.6.3	Gradient is more gentle	(1 x 2) (2)
		Reduced energy/velocity	(1 x 2) (2)
		[ANY ONE]	(1 x 2) (2)
	1.6.4		(2 x 2) (4)

1.6.5 **SLOPE A – MOST SUITABLE FOR THE CAMPOSITE**

Has a gentle convex shape	(2)
Gentle slope ideal for building and camping	(2)
Easy access to river for fishing or collecting water	(2)
Flow rate is lower and therefore safer	(2)
Over time deposition will allow the campsite to increase in size	(2)
Easier to launch small boats and canoes	(2)
It creates a shallow point to access the river	(2)
Soil is fertile therefore more vegetation	(2)
More trees for shade	(2)

SLOPE B

Constant erosion/undercutting results in concave/steep slope	(2)
Undercutting leads to the formation of a river cliff which is unstable	(2)
The position of camp sites will retreat and cause facilities to be damaged	(2)
Reduced access to water	(2)
Faster flowing water will be more dangerous	(2)
[ANY FOUR]	(4 x 2) (8)

[16]

Nov 2017

2.5 2.5.1 When you have a younger river flowing on an older landscape that has been exposed through erosion of the surface layer (1)

A stream pattern that does not match the underlying rock structure

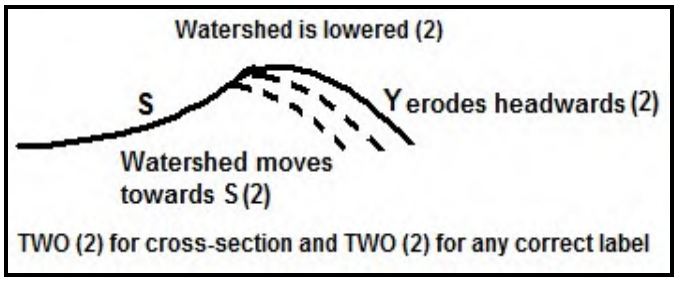
A stream that imposes itself on a new rock structure after erosion of the top layer (1)

[CONCEPT] (1 x 1) (1)

[ANY ONE]

2.5.2 Stream now cuts through hard exposed ridges (1 x 2) (2)

2.5.3



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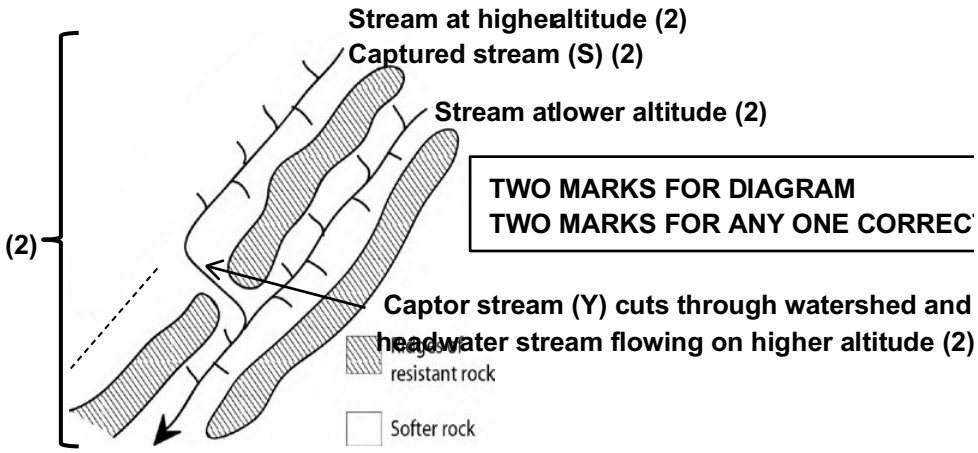

(2 x 2) (4)

2.5.4 **CHANGES IN THE CAPTURED STREAM DOWNSTREAM OF THE ELBOW OF CAPTURE**

Decreased channel flow in river as its headwaters are captured (2)

Decreased velocity as wetted perimeter increases (2)

Loss in volume/velocity decreases the energy of the river/less energetic (2)

Loss in volume/velocity decreases its erosive ability (2)

River unable to carry its load/deposition increases (2)

River deposits its load on the river bed (2)

Small stream within a larger valley/misfit stream/narrower stream (2)

Less water, therefore stream discharge decreases (2)

River could dry up (2)

As headwaters are lost, the drainage basin decreases (2)

River has less water for plants/fish (2)

Reduced biodiversity/destruction of river ecosystem (2)

River has less water for people that depend on the river for survival (2)

[ANY FOUR] (4 x 2) (8)

Nov 2017

2.6 2.6.1 Rejuvenated rivers are 're-energised' (1)

	Display aspects of both vertical and horizontal erosion	(1)
	Rivers that actively erode downward again	(1)
	The carrying capacity of the river increases	(1)
	[ANY ONE]	(1 x 1) (1)
2.6.2	Terraced slopes/river terraces	(1)
	New flood plain	(1)
	Valley within a valley	(1)
	Incised/entrenched meander	(1)
	[ANY TWO]	(2 x 1) (2)
2.6.3	River capture increases the water volume	(2)
	Fast flowing tributary which joins the main river	(2)
	Sustained/prolonged increase in rainfall within a catchment area	(2)
	Climate change that results in an increased rainfall	(2)
	Tectonic shifts in the landscape (uplift) changes the base level of the river	(2)
	Drop in sea-level changes the base level of the river	(2)
	Sudden change in gradient	(2)
	Clearing of vegetation increase run-off	(2)
	[ANY TWO]	(2 x 2) (4)
2.6.4	Incised meanders/entrenched meanders	(2)
2.6.5	Construction of bridges will be more expensive and need to cover the width the valley	(2)
	Steep slopes will make it difficult to build roads/railway lines	(2)
	It will be difficult to provide services (power/water)	(2)
	More time consuming to develop infrastructure	(2)
	Difficult to use heavy machinery in the construction of infrastructure	(2)
	[ANY ONE]	(2 x 2) (4)
2.6.6	Meanders may undercut the terrace causing it to collapse/slope instability	(2)
	Terraces too high lying to access water to the farmed areas	(2)
	Steep terrace slopes limits access to terraces	(2)
	Narrow terraces limit cultivation	(2)
	No more flooding to deposit fertile silt	(2)
	At risk to mudslides/mudflows	(2)

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

Nov 2018

1.5	1.5.1	There are very few tributaries	(1)
		Few streams cover a large area	(1)
		[ANY ONE]	(1x1)(1)
	1.5.2	Low/soft rainfall will increase infiltration and decrease run-off	(2)
		Gentle gradient will increase infiltration and decrease run-off	(2)
		More vegetation cover will increase infiltration and decrease run-off	(2)
		Permeable soil will increase infiltration and decrease run-off	(2)
		Porous rock will increase infiltration and decrease run-off	(2)
		Drier soil will increase infiltration and decrease run-off	(2)
		High evaporation rate reduces water available for surface run-off	(2)
		Little development therefore few artificial surfaces to prevent infiltration	
		Low rainfall will result in fewer streams	(2)
		[ANY TWO]	(2)
			(2x2) (4)
	1.5.3	There will be more first order streams/fingertip streams	(2)
		The order of subsequent streams will increase	(2)
		Stream order at A will increase	(2)
		3rd order to higher order	(2)
		[ANY ONE]	(1x2) (2)
	1.5.4	Clearing of natural vegetation/deforestation will increase run-off	(2)
		Overgrazing by animals removes natural vegetation which increases run-off	(2)
		Incorrect ploughing methods can result in more water flowing down the furrows	(2)
		Over-cultivation of farmland destroys vegetation and top soil	(2)
		The loss of topsoil due to human activities can result in the formation of gullies (dongas)	(2)
		Building of settlements increases artificial surfaces therefore more run-off	(2)

		Building of canals to divert run-off create more river channels	(2)
		Building of roads reduces natural vegetation which increases run-off	(2)
		Open cast mining causes removal of natural vegetation increasing run-off	(2)
		Trampling of soil by livestock decreases infiltration	(2)
		[ANY FOUR. CANDIDATE MUST INDICATE HOW THE FACTOR RESULTED IN A HIGHER DRAINAGE DENSITY]	(4 x 2) (8)

Nov 2018

1.6	1.61	Upper course	(1)
	1.6.2	Width/Breadth	(1)
		Depth	(1)
		Shape	(1)
		Heights of interfluves change	(1)
		[ANY TWO. ACCEPT DESCRIPTION OR MEASUREMENTS]	(2 x 1) (2)
	1.6.3	In the upper course vertical/downward erosion takes place	(2)
		In the lower course deposition/lateral erosion takes place	(2)
			(2 x 2) (4)
	1.6.4	(Increased) lateral erosion/(decreased) downward erosion results in a river valley widening	(2)
		Sheet flow down the valley slopes will result in the lowering of the slopes	(2)
		River slows down in the middle course causing deposition which decreases the depth of the valley	(2)
		More gentle gradient in the middle course causing deposition which decreases the depth of the valley	(2)
		Meandering river will widen the valley floor	(2)
		Where the river exits the confines of the mountain, the river valley will be wider	(2)
		Greater volume of water and lower velocity will increase lateral erosion in the middle course	(2)
		[ANY TWO]	(2 x 2) (4)

	1.6.5	In the upper course of the river the valley is narrow	(2)
		Cost of construction of the dam wall will be cheaper	(2)
		The rocky banks will make the structure stronger	(2)
		The dam will be deeper because of the deep valley	(2)
		Cooler temperatures at higher altitude, therefore less evaporation	(2)
		Smaller water surface area reduces evaporation rates	(2)
		A deeper dam will have an increased capacity	(2)
		Less silt in the dam as there are fewer tributaries that enter the dam	(2)
		Steepness of slope allows easy flow of water into a dam	(2)
		[ANY TWO]	(2 x 2) (4)

Nov 2018

2.5	2.5.1	When a river is eroding the landscape <u>downwards</u> in response to a	(1)
		lowering/change of its base level	(1)
		River rejuvenation is a process where rivers (are re-energised to)	(1)
		actively erode <u>downward</u> again	(1 x 1) (1)
		[CONCEPT]	
	2.5.2	A drop in the sea level	(1)
	2.5.3	Waterfall/rapids	(1)
			(1 x 1) (1)
	2.5.4	Rejuvenated rivers will be ungraded/obstructions along the course as	(2)
		a result of renewed downward erosion	(2)
		River will now show a multi-concave profile	(2)
		Temporary base levels of erosion will develop (examples: knickpoint,	(2)
		rapids, waterfall)	(2)
		Overgraded river as renewed downward erosion now takes place	(2)
		Vertical erosion downstream of the knickpoint dominates	(2)
		The balance between erosion and deposition is disturbed	(2)
		[ANY TWO]	(2 x 2) (4)
	2.5.5	Knickpoints can form because of the old erosion level meeting the new	(2)
		erosion levels	(2)
		The knickpoint retreats upstream	(2)
			(2)

		Waterfall can form at the knickpoint due to the break/lowering along the	(2)
		course of the river	(2)
		Waterfalls can turn into rapids	(2)
		Meanders will become more incised and entrenched (erode vertically)	(2)
		River cuts into the flood plain and a new flood plain develops	(2)
		A valley within a valley forms because of vertical erosion	(2)
		Valleys with multi-terraced slopes will form	(2)
		River channel becomes narrower	(2)
		New floodplain is narrower than the original flood plain	(2)
		More meanders develop	(4 x 2) (8)
		[ANY FOUR]	

Nov 2018

2.6	2.6.1	Deforestation is the removal of trees/natural vegetation/Cutting down of trees quicker than it can be replaced	
		[CONCEPT]	
	2.6.2	(a) 2050	(1 x 1) (1)
		(b) KwaZulu-Natal/KZN	(1x1) (1)
	2.6.3	Decreased carrying capacity	(2)
		River blockage	(2)
		Reduce water quality	(2)
		Rivers/dams become shallower	(2)
		Increases the stream load	(2)
		Disrupt ecosystem of the river	(2)
		Disrupt biodiversity in a river	(2)
		Increased flooding of river system	(2)
		Less infiltration	(2)
		Decrease in groundwater levels	(2)
		Reduction in base flow	(2)
		More evaporation dries soil out	(2)
		Greater erosion along river banks	(2)
		Lowering of levees	(2)
		More polluting of the rivers and eutrophication	(2)

[ANY TWO] (2)

(2 x 2) (4)

2.6.4 Legislation to protect areas that are prone to deforestation (2)

Fines to those who illegally remove trees (2)

Implement more afforestation within the river system (2)

Create awareness of the negative impacts of deforestation (2)

Educate people on the importance of good river management systems (2)

Promote conservation and establish more protected areas to prevent (2)

deforestation (2)

Create a buffer zone for protection of natural forests (2)

Protect river banks from deforestation (2)

Rehabilitation of forests/afforestation (2)

Encourage recycling to reduce deforestation (2)

[ANY TWO] (2)

(2 x 2) (4)

2.6.5 Poor river management will result in less water being available (2)

Poor quality of the water will result in higher purification costs (2)

Water is unsafe for human consumption (2)

Increased siltation of dams will compromise water quality (2)

Shortage of good quality water would make it more expensive (2)

More run-off reduces groundwater supply (2)

Expensive to implement inter-basin water transfer schemes (2)

Less water for domestic, industrial and agricultural use (2)

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

Nov 2019

1.5 1.5.1 When one river captures/intercepts/robs/steals the headwaters of another river/When a more energetic river captures a less energetic river (1)

The stream flowing at a lower level captures/intercepts/robs/steals the waters of a stream flowing at a higher level (1)

(1 x 1) (1)

[CONCEPT]

1.5.2	Headward /Backward erosion	(1)
	Erodes upstream (from its source)	(1)
	[ANY ONE]	(1 x 1) (1)
1.5.3	L – elbow of capture	(1)
	M – wind gap	(1)
		(2 x 1) (2)
1.5.4	J – misfit stream	(1)
	K – captor stream	(1)
		(2 x 1) (2)
1.5.5	(a) It is a high lying area that separates two different drainage basins	(1)
	[CONCEPT]	(1 x 1) (1)
	Lowering (vertically) of the watershed	
	Headwards movement/retreats horizontally	(2)
	[ANY ONE]	(2)
	(b) It will increase the volume of the water in this stream	(1 x 2) (2)
1.5.6	They would have to access other water sources (e.g. JoJo tanks)	(2)
	Harvesting rain water	(2)
	The transport of water from other areas	(2)
	Make use of wind pumps/bore holes to access ground water	(2)
	Build (farm/small) dams	(2)
	Recycling/purification of water	(2)
	Reduce the amount of livestock on farms	(2)
	They would have to reduce the variety of crops on farms	(2)
	Decrease the production of crops on farms	(2)
	Change to crops that require less water	(2)
	The use of GM/drought resistant seeds	(2)
	Increase the use of fertilizers	(2)
	More intensive irrigation	(2)
	Use fertigation (include fertiliser) with drip irrigation processes	(2)
	Remove alien vegetation	(2)
	Greenhouse farming	(2)
	Use of cover crops to reduce evaporation	(2)
	Use water wisely and sparingly in households	(2)

Use of canals and furrows for irrigation (accept examples) (2)

More effective method of irrigation (e.g. drip irrigation instead of sprinkler system) (2)

[ANY TWO] (2)

(2x2) (4)

Nov 2019

1.6.1 Industries (1 x 1) (1)

1.6.2 Lack of natural vegetation increases the run off (1 x 2) (2)

1.6.3 **SETTLEMENTS**

Untreated sewage from settlement ends up in the river polluting the water and causing diseases (2)

Domestic waste water is released in drainage systems decreasing the quality of the water (2)

Grey water (dust, oil from roads) pollutes the river system (2)

Runoff from settlements carries waste material into the water (2)

[ANY ONE]

CULTIVATED LAND

Fertilizers used on farms is washed into the rivers causing eutrophication (2)

Pesticides used for crops is washed into the river polluting the water (2)

Soil erosion makes the water murky (2)

(2 x 2) (4)

[MUST REFER TO BOTH SETTLEMENT AND CULTIVATED LAND]

[ANY ONE]

1.6.4 **SUSTAINABLE RIVER MANAGEMENT STRATEGIES**

Access to clean fresh water for future generations (2)

South Africa is a water scarce country (low unreliable rainfall) (2)

Better quality crops will be produced with higher yields (2)

Most industries need a good water supply to function productively (2)

		Water is necessary for the production of products e.g. soft drinks, sweets, canned foods	(2) (2)
		Higher exports with more profits from crops	(2)
		Healthier meat products with a better monetary value will be produced	(2)
		Rivers are a less expensive mode of bulk transport	(2)
		Good river management encourages eco-tourism/tourism/ recreation	(2)
		Good quality of water sustains farming/mining/fishing/forestry industry	(2)
		Maintaining rivers creates sustainable employment	(2)
		It allows for the generation of hydroelectricity which is an alternative source of power	(2) (2)
		Decreases purification costs of drinking water	(2)
		Decreases water borne diseases therefore workforce is healthier	(2)
		Results in water being more affordable/cheaper	(2)
		OR	(2)
		UNSUSTAINABLE RIVER MANAGEMENT	
		Increases purification costs of drinking water	
		Increases water borne diseases therefore workforce is unhealthy	(2)
		Acidic water stunts plant growth	(2)
		Acidic water can hinder crop cultivation	(2)
		Contaminated water poses a health hazard	(2)
		Polluted rivers will affect the fishing industry	(2)
		Polluted rivers can contaminate oceans	(2)
		[**CANDIDATES CAN REFER TO BOTH SUSTAINABLE OR UNSUSTAINABLE FACTORS BUT THE SAME FACT <u>CANNOT</u> BE REPEATED] [ANY FOUR] (4 x 2) (8)**	(2) (4x2) (8)

Nov 2019

2.5	2.5.1	(Side) view of a river from source to mouth **[CONCEPT]**	(1 x 2) (2)
	2.5.2	It has a concave shape	(2)
		It is steep in the upper course, less steep in the middle course and gradual in the lower course	(2)
		[ANY ONE]	(1 x 2) (2)

2.5.3 Ultimate (permanent) – sea (1)
Temporary – dam (1)
(2 x 1) (2)

2.5.4 It will decrease the capacity/reduce the volume of water (1 x 2) (2)

2.5.5 Original longitudinal profile is graded /concave shaped/with no temporary base levels (2)
New longitudinal profile is ungraded/multi-concave/has temporary base levels of erosion (2)
[ANY ONE COMPARISON] (2 x 2) (4)

2.5.6 **EROSION**

More erosion upstream of dam due to greater water volumes (2)
Erosion temporarily stops at the dam (2)
Rate of erosion decreases downstream of the dam due to less water (2)
[ANY ONE]

DEPOSITION

Deposition of silt in the dam results in less deposition downstream (2)
The rate of deposition increases as the velocity of the water is reduced downstream (2)
[MUST REFER TO BOTH EROSION AND DEPOSITION]
[ANY ONE]

(2 x 2) (4)

Nov 2019

2.6 2.6.1 Undercut slope (1)
Meander loop (1)

(Accept Meander)

[ANY ONE] (1 x 1) (1)

2.6.2 UNDERCUT SLOPE

Faster moving water on the outer bank (2)

Increased erosion on the outer bank (2)

MEANDER/MEANDER LOOP

The gradient is more gradual (2)

Reduction in velocity (2)

Increase in lateral erosion (2)

[ANY ONE] (2x1) (2)

2.6.3 Constant undercutting of the outer bank causes it to collapse (2)

Faster moving water on the outer bank removes the eroded material (2)

[ANY ONE] (1x2) (2)

2.6.4 (Regular) flooding generally occurs in the lower course of the river and as it overflows sediments are deposited on the banks (2)

In the lower course of the river the gradient is more gentle and deposition occurs (2)

[ANY ONE] (1x2) (2)

2.6.5 **POSITIVE**

It reduces risk of flooding of farmland and loss of farm equipment (2)

Reduces direct run off into the river making more water available for farming on the floodplain (2)

Levees prevent fertile soil from the floodplain from being washed into the river (2)

Raised banks increases the carrying capacity of the river (2)

More water available for farming (2)

Prevents loss of livestock/farmland therefore higher profits (2)

Fertile soil on the levee promotes farming (2)

(2)

NEGATIVE (2)

		Reduces the deposition of sediment (alluvium) on farmland (2)	(2)
		Reduces the fertility of soil on the farmland (2)	(2)
		Reduces access to water for farmers (2)	(2)
		Forms an obstacle to tributaries joining the main river, reducing the amount of water available in the river	(2) (2)
		Irrigation becomes more difficult and expensive	(2)
		Bad drainage can result in waterlogged floodplains and rotting crops	(2)
		[CANDIDATES MUST REFER TO BOTH POSITIVE AND NEGATIVE IMPACT]	(4x2) (8)
		[ANY FOUR]	

Nov 2020

1.5	1.5.1	At the point where the river enters the sea/river mouth/lakes	(1 x 1) (1)
	1.5.2	They are home to hundreds of millions of people	(1x1) (1)
	1.5.3	Groundwater being pumped from aquifers (permeable rocks	(1x2) (2)
	1.5.4	Deltas are a source of water	(2)
		Deltas sustain all ecosystems	(2)
		Deltas ensures biodiversity	(2)
		Deltas provide fertile farming land for agricultural activities/food production	(2)
		Tourism (leisure activities) opportunities are created by deltas and contributes to the economy	(2)
		Home to many people/settlement	(2)
		Can be part of water transport system	(2)
		Deltas are a source of protein (fish)	(2)
		Provides water for fishing and aquaculture	(2)
		[Accept candidates might write in the negative]	
		[ANY TWO]	(2 x 2) (4)
	1.5.5	Limit the number of people living on deltas to reduce the amount of water pollution	(2)
		Reduce infrastructural development on deltas	(2)
		Practice ecotourism to preserve deltas	(2)

		Regulate mariculture in and around deltas	(2)
		Reduce agricultural activity to protect the fertility of the soil	(2)
		Reduce irrigation to ensure high water levels in the delta	(2)
		Limit/regulate the extraction of groundwater beneath deltas	(2)
		Declare as conservation areas	(2)
		Educating the population residing in area about the significance of deltas	(2)
		Buffer (fencing off) delta areas	(2)
		Impose fines on those who pollute delta areas	(2)
		Sustainable farming methods (accept examples)	(2)
		Monitor/management upstream river development so rivers are not starved of sediments	(2)
		Build fewer dams upstream to allow more sediment to be carried in rivers	(2)
		Legislation to protect deltas	(2)
		Restrict no of hydroelectric power stations/dams/reservoirs which alter delta ecosystems	(2)
		Maintain vegetation and plantations in and around the delta	(2)
		Regular monitoring and testing of the water quality (River health programmes)	(2)
		[ANY FOUR]	(4 x 2) (8)

Nov 2020

1.6	1.6.1	When a river erodes (downwards) again because it is re-energised [CONCEPT]	(1 x 1) (1)
	1.6.2	Lower course/Old stage	
	1.6.3	Wide floodplain (almost flat)	(2)
		Wide river valley	(2)
		Meanders are visible	(2)
		River enters the sea/river mouth	(2)
		Presence of terraces	(2)
		Evidence of lateral erosion	(2)
		At the sea/ocean (label)	(2)
		Entrenched meanders	(2)
		Shading shows a deepening of the river channel	(2)

	[ANY ONE]	(1 x 2) (2)
1.6.4	Gradient is steeper (river flows down a slope)	(2)
	Turbulent flow (fast flowing river has more energy) after rejuvenation	
	Increase in volume of water	(2)
	Results in a higher velocity after rejuvenation	(2)
	[ANY TWO]	(2 x 2) (4)
1.6.5	(a) River channel has become deeper	(2)
	River channel has become wider	(2)
	River channel has become straighter (fewer meanders/curves/bends)	(2)
	River channel has steeper sides	(2)
	[ANY ONE]	(2 x 1)(2)
	(b) Meander loop has moved further downstream	(2)
	Meander downstream has disappeared	(2)
	Meander neck has become narrower (length and width of meander decreased)	(2)
	Meander is entrenched/incised/deepens	(2)
	[ANY ONE]	(2x1)(2)
1.6.6	Increases the amount of silt in the dam	(2)
	Increased silt may damage the dam wall and cause it to collapse	(2)
	Silting negatively impacts on the biodiversity of dams	(2)
	Water holding capacity of dam reduced	(2)
	Less effective in controlling flood waters	(2)
	The increased volume and velocity of water may break the dam walls	(2)
	Increased in the cost of maintenance	(2)
	Water quality decreases when sediments are deposited	(2)
	[ANY TWO]	(2x2) (4)

Nov 2020

2.5	2.5.1	Process in which one river captures/robs the headwaters of another river [CONCEPT]	(1x2) (2)
	2.5.2	1 – elbow of capture	(1)
		2 – wind/dry gap	(2 x 1) (2)
	2.5.3	Flowing over a steeper gradient (accept examples)	(1)
		Flowing over softer rocks	(1)

		Increase in the volume of water (accept examples)	(1)
		Headward erosion	(1)
		[ANY TWO]	(2 x 1) (2)
	2.5.4	Headwaters of the misfit stream was cut off by the captor stream through the process of headward erosion	(2)
		It continued to flow (after the wind/dry gap) with a reduced supply of water	(2)
			(2 x 2) (4)
	2.5.5	Volume of water in the river will increase	(2)
		Velocity (speed) of the river increases	(2)
		Increases the erosive power of the river	(2)
		Ability to transport a bigger load	(2)
		Rate of deposition is lowered	(2)
		Possibility of flooding increases	(2)
		River discharge is turbulent	(2)
		[ANY THREE]	(3 x 2) (6)
Nov 2020			
2.6	2.6.1	Ungraded	(1 x 1) (1)
	2.6.2	It has an uneven profile	(2)
		Presence of temporary base level of erosion/knickpoint/waterfall (plunge pool)	(2)
		Presence of resistant (hard) rock	(2)
		Multi concave profile	(2)
		[ANY ONE]	(1 x 2) (2)
	2.6.3	Riverbed is uneven and causes turbulent flow, which encourages erosion	(2)
		The steeper gradient will result in an increase in erosion	(2)
		It has obstacles (knickpoint/waterfall/temporary base levels) along the river that causes erosion	(2)
		The falling water is causing undercutting at the base of the waterfall (accept examples of erosional processes that occur at the base of the waterfall (plunge pool)	(2)
		The softer rock at the base of the waterfall erodes faster	(2)

[ANY TWO] (2x2) (2)

2.6.4 Downward/Vertical erosion dominates in the upper course causing a steep valley slope (2)

Headward erosion removes temporary base levels of erosion in the upper course (2)

Downward/Vertical erosion removes temporary base levels (waterfall) in the upper course (2)

This material is then transported downstream (2)

Discharge of the river increases in middle course causing lateral erosion (2)

Gradient in the middle course becomes less steep (2)

Deposition dominates in the lower course because the gradient is gentle (2)

Deposited materials fill up lakes and dams (2)

The river profile will now develop a concave shape from upper to lower course (2)

Equilibrium between erosion and deposition will maintain (result in) a graded profile (2)

[ANY FOUR] (4 x 2) (8)

Nov 2020

2.4 2.4.1 An area of high temperature over the city that decreases towards the rural area/phenomenon that makes urban areas hotter than their surrounding

[CONCEPT] (1 x 2) (2)

2.4.2 'the global focus of city infrastructure planning has been on cars' (1)

'getting as many people as possible into tall buildings' (1)

‘Heat comes from decades of poor planning’ (1)

‘office blocks overcrowding their occupants’ (1)

‘tarred roads criss-crossing’ (1)

‘big cement slabs’ (1)

[ANY TWO] (2 x 1) (2)

2.4.3 Subsiding air at night pushes the warm air closer to buildings in the city which results in more heat being concentrated (in a smaller area) (2)

Weaker convection currents at night concentrates the heat island effect (2)

Subsiding air traps the heat between buildings (2)

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

2.4.4 Plant more trees to absorb more carbon dioxide (2)

Establish roof gardens/vertical gardens on high rise buildings (2)

Create parks/greenbelts in the urban area (2)

Reduce carbon emissions in urban areas by making use of solar energy (2)

Reduce carbon emissions in urban areas by making use of wind energy (2) Replace concrete/tar surfaces with cobble stones which allow infiltration of water and cooling through evaporation (2)

Promote urban farming that will result in more evapotranspiration and cooling of temperatures (2)

Use of public transport/cycling to reduce the number of vehicles on the roads (2)

Reduce the number or vehicles on the road (accept examples) (2)

Use of reflective paint on buildings and roofs (2)

Reducing our carbon footprint through recycling and re-using of products (2)

Modernisation of buildings with greener materials (accept examples) (2)

Implementing energy saving strategies (accept examples) (2)

Encourage the use of hybrid cars which produce no pollution (2)

Use of catalytic converters in motor vehicles (2)

Creation of water features (accept examples) (2)

Green policy to be included in all legislation (2)

Awareness/education campaigns on green policies (2)

Incentives for going green/eco-friendly products (accept examples)

[ANY FOUR – ACCEPT QUALIFIED EXAMPLES] (4 x 2) (8)

November 2017

Question 3

3.1.1 B (1)
3.1.2 A (1)
3.1.3 A (1)
3.1.4 B (1)
3.1.5 A (1)
3.1.6 A (1)
3.1.7 B (1)

November 2017

3.2.1 South Western Cape (1)
3.2.2 Shortages of water (1)
3.2.3 PWV/Gauteng (1)
3.2.4 Fruit/Grapes (1)
3.2.5 A/South Western Cape (1)
3.2.6 A/North America and South America (1)
3.2.7 A/South Western Cape (1)
3.2.8 B/PWV (1)
(8 x 1) (8)

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Question 4

4.1.1 B (1)
4.1.2 B (1)
4.1.3 B (1)
4.1.4 A (1)
4.1.5 A (1)
4.1.6 B (1)
4.1.7 A (1)
4.1.8 A (1)
(8 x 1) (8)

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4.2.1 C/Large-scale (1)
4.2.2 E/Intensive farming (1)
4.2.3 A/Urban agriculture (1)
4.2.4 B/Labour intensive (1)
4.2.5 F/Export market (1)
4.2.6 G/Home market (1)
4.2.7 D/Monoculture (1)
(7 x 1) (7)

November 2017

3.3 3.3.1 The urban land set aside for a specific function/purpose (1) (1 x 1) (1)

3.3.2 Central Business District (CBD) (1) (1 x 1) (1)

3.3.3 All main roads lead to the CBD/converge in the CBD (2)
Centrally located (2) [ANY ONE] (1 x 2) (2)

3.3.4 Increase in traffic congestion (2) Results in overcrowding (2)
Increased air pollution levels (2)
High noise pollution levels (2)
More littering (2)
Urban heat island effect intensifies (2)
Higher probability of accidents (2)
Increase in crime (2)
Lack of parking facilities (2)
Shortage of space (2)
High land values (2)
High rental cost of office space (2)

More roads create more artificial surfaces which increases run-off (2)
Urban blight of the city because of higher usage of the city (2)
Destruction of the natural environment/ecosystems/habitats (2)
[ANY TWO] (2 x 2) (4)

3.3.5 **HOW DO GREENBELTS REDUCE THE ENVIRONMENTAL PROBLEMS CAUSED BY ACCESSIBILITY?**
Refer to environmental factors only
Controls greenhouse gases (2)
Reduces the effect of urban heat islands/lowers temperatures (2)
Cleans the air/purifies by absorbing carbon dioxide/reduces air pollution (2)
Carbon sink by releasing oxygen (2)
Reduces run-off (2)
Absorbs/reduces city noises and traffic sounds/buffers noise/filters noise (2)
Creates a habitat for other living organisms (2)
Creates a pleasing natural environment for recreational purposes (2)
Improves the aesthetics of the urban environment (2) Greater biodiversity (2)
[ANY FOUR] (4 x 2) (8)

November 2017

3.4 3.4.1 When some buildings in the city becomes run-down/dilapidated and are not fixed/maintained (1) [CONCEPT] (1 x 1) (1)

3.4.2 Landlords do not maintain buildings (1)
Overcrowding of properties (1)
Future zone of expansion of CBD (1)
Intention to change original function of building (1)
Illegal occupation of buildings (1)
Sub-letting (1)
Poor service delivery (1)
[ANY ONE] (1 x 1) (1)

3.4.3 Deadline to move was extended (2)
Nowhere to go/no alternative accommodation (2)
Do not want to move elsewhere (2)
Sentimental value attached to house/community/familiar with the community (2)
Cannot afford to move elsewhere/no money to relocate (2)
They don't want to be moved far from the city/place of work (2)
[ANY ONE] (1 x 2) (2)

3.4.4 Residents are forced to move out of the buildings that will be renewed (2)
Residents are forced to settle in new communities that they are not familiar with (2)
Residents level of access to amenities in the CBD will be reduced (2)
Residents will incur increased costs due to the movement (2) They will be settled far distances out of the city (2)
Disruption of social networks/linkages/heritage/sentimental buildings (2)
Lack of consultation/excluded from decisions to effect urban renewal (2)
[ANY ONE] (1 x 2) (2)

3.4.5 Buildings in the transition zone are dilapidated (2)
Creates health and safety hazard (2)
Urban decay is highest in the transition zone (2)
To prevent urban decline that can spill over to the CBD (2)
To prevent vandalism/graffiti (2)
Residential buildings e.g. flats in the transition zone are mostly occupied illegally (2)
To prevent the influx of vagrants (2)
Most landlords do not maintain the buildings that they own in the transition zone (2)
To upgrade buildings/making buildings more aesthetically pleasing/improve the prestige of the city (2)
Many social ills (crime/prostitution/drug abuse/domestic violence) (2)
High land value but low building value (2)
To increase the property value (2)
To prevent loss of money for the city (2)
To attract more investors into the area (2)
To attract more tourists (2)
Facadism (preservation of the building frontage) (2)
Preserve the building heritage (2)
[ANY TWO] (2 x 2) (4)

3.4.6 Only people with a higher income can afford to stay here (2)
Excludes lower income earners (who don't have affordability) (2)
Area will now have a higher status/prestige (2)
Value of property increases (2)
More costly to buy/rent (2)
Upkeep of property will increase (2)
Continuous gentrification will take place (2)
Higher levels of security and safety (increases the rentals which only higher income earners can afford) (2)
[ANY TWO] (2 x 2) (4)

November 2017

4.3 4.3.1 Market area from where an urban settlement/business draws customers (1)

[CONCEPT] (1 x 1) (1)

4.3.2 City larger/bigger/wider than the town (1) OR

Town smaller/narrower than the city (1) (1 x 1) (1)

4.3.3 The order of the goods sold in a particular service area/order of services

provided/degree of specialisation of services/goods (1)

Number of functions/goods that are offered (1) Type of functions offered/goods sold (1)

Variety of goods/services offered (1) Price of goods/services (1)

[ANY ONE] (1 x 1) (1)

4.3.4 Zone of competition/where people can choose which place to shop at (2)

Personal choice/convenience of where to go (2)

Travel to place which offers better services (2)

If there is little impact on travelling time and cost for the product they want to purchase (2)

Going to either town or city for another purpose and shopping while there (2)

En-route to place of work/residence (2) Offering of cheaper goods/services (2) Variety of goods offered (2)
For high order/speciality goods/services customers can choose to go to the city (2)

For low order/daily goods/services customers will most likely go to the town (2)

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

4.3.5 Distance travelled (range) will depend on the order of the goods/service (2)

High order goods/services/consumer goods have a greater range and draw customers from farther away (2)

Low order goods/services/basic commodities/convenience goods have a shorter range therefore people not prepared to travel very far (2)

Cost of goods/services – the cheaper, the shorter the distance/the more

expensive, the farther the distance (2)

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

4.3.6 People not prepared to travel long distances to obtain lower order

goods/services/convenience goods/functions (2)

More low order centres will exist to provide for the daily needs of people/goods/functions that are frequently needed (2)

Increased costs to obtain low order goods/services/functions if you have to travel to high order centres for daily needs (2)

Low order centres serve a small area (2)

High order goods and services are not required daily/less frequently (2) Fewer outlets provide high order goods/services/functions/not regular use of services (2)

People are prepared to travel long distances to obtain high order goods/services/functions therefore fewer high order centres needed (2)

High order centres serve a large area (2)

Economic progression - as economic development takes place, some smaller centres will grow into larger centres (as number of

goods/services/functions increases, that town will grow) (2)

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

November 2017

4.4.1 Drought/farm dried up/lack of rainfall (1) Loss of property/unemployment (1)

Poor standards of living in the rural area (1) [ANY ONE] (1 x 1) (1)

4.4.2 Higher standard of living (1) (1 x 1) (1)

4.4.3 Not all people have a higher standard of living evident in strip 4 (1) Some people live in shacks/informal settlements (1) Some poor living conditions (1) High rate of unemployment (1)
[ANY ONE] (1 x 1) (1)

4.4.4 Employment/job opportunities (2) Basic services (2)

Education/medical services (2)

Formal housing (2)

Cultural/recreational/entertainment/'bright lights' (2)

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

4.4.5 MAKING PROVISION FOR AN INFLUX OF RURAL MIGRANTS
New low cost housing projects/to prevent housing shortages/curb the development of informal settlements (2) Formalising the current informal settlements (2)

Improved infrastructure (2)

Improved basic services (2)

Money to install solar geysers (2)

Money to install water storage systems/JoJo Tanks (2)

Improved public transport (2)

Improved sanitation (2)

Access to education (2)

Regular waste removal (2)

Preventing spreading of diseases due to unhygienic living conditions (2)

Access to clinics (2)

Improved drainage systems (2)

Reskilling programs (2)

Improved crime prevention and policing (2)

Accessible social services (2)

Must create employment opportunities (2) To maintain existing services (2)

To prevent poor service delivery protests (2)

Providing a better quality of life for inhabitants (2)

[ANY FOUR] (4 x 2) (8)

3.5

3.5.1 Coega (1)

East London/ELIDZ (1)

Richards Bay/RBIDZ (1)

Dube Trade Port (DTP) (1)

Saldanha Bay (1) (1 x 1)

[ANY ONE] (1)

3.5.2 To attract foreign investments and increase exports (1) (1 x 1)

(1)

3.5.3 Provide attractive service rebates/government incentives (water/electricity/transport) (2)

Tax rebates/concessions (2)

Provide well-developed infrastructure (2)

Cheaper and open land (2)

Access to labour supply (2)

Access to harbours and transport links for export (2)

It is closer to export markets (2)

Duty free benefits on importing raw materials (2)

Attracts potential investors (2) (2 x 2)

[ANY TWO] (4)

3.5.4 Relieves pressure on infrastructure (2)

Less pollution (2)

Less pressure on services/prevents over-utilising of resources

Less traffic congestion (2)

Reduces rural-urban migration (2)

Reduces overcrowding (2) (2 X 2) (4)

[ANY TWO]

3.5.5 Providing job opportunities (2)

Up-skilling people (2)

Lowering of crime rates (2)

Poverty alleviation/better standard of living (2)

Improved infrastructure (2)

Improved service delivery (2)

Better housing (2)

Contributes to the local economy (2)

Industrialists are involved in social responsibility initiatives (2 x 2) (4)

(2)

The multiplier effect/development of associated or linked industries (2)

[ANY TWO]

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3.6

3.6.1 Increased (1) (1 x 1) (1)

3.6.2 Decrease in rank/Dropped seven places (1) (1 x 1) (1)

3.6.3 When all the people have access to nutritious (healthy) food (2) (1 x 2) (2)

3.6.4 Food security enables growth and health in South Africa's population (2)

Enables South Africa to improve nutrition of its workforce (2)

Ensures that all sectors of the population are fed constantly/no food

shortage (2)

Ensures higher productivity levels of inhabitants (2)

To prevent hunger and famine (2)

To prevent malnutrition/stunted growth/diseases (2)

A healthy population reduces the burden on the government/less (2 x 2) (4)

expenditure on healthcare (2)

Increases life expectancy and labour force (2)

Reduces need to import food at high cost (2)

Lower food prices (2)

Outflow of capital from the country is reduced (2)

To prevent social uprisings (2)

[ANY TWO]

3.6.5 REASONS FOR LOW FOOD SECURITY INDEX IN SOUTH AFRICA

Natural

Drought conditions/natural disasters increased resulting in a drop in

production levels reducing the amount of food available (2)

Climate change has resulted in variable rainfall over most cultivation regions

which has dramatically reduced production levels (2)

Pests and diseases decrease crops (2)

Soil erosion resulting in thin and poor soils/large areas have infertile soils (2)

Social/Services

Electricity supply is compromised and increased costs affects food

production and food storage (2)

Lack of access to water supplies for irrigation (2)

Increased health risks/reduced life expectancy (HIV/AIDS) decreases the

ability to produce food (2)

Poor transport facilities in rural areas make food less accessible (2)

Poor use of technology or research/poor farming methods/lack of skills (2)

Uncertainty because of land reform/failed land reform programmes result in
land not being cultivated (2)
Population demand for food is greater than food supply (2)
Increase in farm murders drive farmers of their land (2)
Economical
Economic decline and foreign ratings creates an increasing inflation rate
which increase the cost of food (2)
Increased rural-urban migration reduces food production (2)
High cost of food (2)
Lack of employment/poverty to buy expensive food (2) (4 x 2) (8)
Fluctuating food prices (2)
High production costs e.g. purchasing fertilisers (2)
Subsistence farming has a low productivity (2)
Lack of access to loans/lack of capital to invest in farming activities (2)
Not enough commercial farmers (2)
Farmers produce for the export market and not for the local market (trade
policies) (2)
Misappropriation of funds for the development of farmers (2)
Processed food (e.g. tinning of food) is expensive (2)
[ANY FOUR]

November 2017

4.6

4.6.1 Concerned with the provision of services (1) [CONCEPT] (1 x 1) (1)

4.6.2 Finance, real estate and business service activities (1)
(ACCEPT Construction) (1) (1 x 1) (1)
[ANY ONE]

4.6.3 FINANCE, REAL ESTATE AND BUSINESS ACTIVITIES
Gauteng is the economic hub of South Africa (2)
There are many Head Offices and businesses (2)

Concentration of these economic activities (2)

Office and business space readily available (2)

The Johannesburg Security/Stock Exchange (JSE) located here (2)

OR

CONSTRUCTION

Gauteng experiences rapid growth in economic development (2)

Industrial growth requires more factories (2)

Influx of businesses requires office space (2)

Influx of people requires housing (2)

Constant upgrading of older buildings/urban renewal projects (2)

Constant upgrading of infrastructure/well-developed infrastructure promotes (1 x 2) (2)

construction industry (2)

[ANY ONE, DEPENDING ON ANSWER TO QUESTION 4.6.2]

4.6.4 It contributes a large percentage/more than 30% (2) (1 x 2) (2)

4.6.5 More profits are generated from the tertiary sector/tertiary products have a

higher value (2)

Exporting primary products has a low profit margin/primary products has less value (2)

Tertiary sector is more indicative of the skill levels of the labour force (2)

Tertiary sector generates a more steady income as compared to the primary sector (2)

Tertiary activities less at risk to natural disasters (2)

Climatic changes put farming products at risk (2)

Higher salaries are earned which strengthens buying power (2)

Tertiary activities has a greater potential to attract foreign investments (2) (2 x 2) (4)

To protect raw materials from being depleted/destroyed (2)

[ANY TWO]

4.6.6 Transport/airports increases accessibility in terms of international links/promotes international trade (2)

Gautrain provides alternative means of accessibility (2)

Good transport networks connect Gauteng with rest of SA/promotes

domestic trade (2)

Allows for the easy transportation of goods (2)

Transport networks attracts foreign investment/promotes further growth (2)

Links Gauteng to harbours and facilitates international trade (2)

Rapid transport services to transport people to work and back (2)

Promotes tourist-related industries (2) (2 x 2) (4)

Increases access to tertiary services (2)

Leads to growth in tertiary sector (2)

[ANY TWO]

November 2018

Question 3

3.1.1 Linear (1)
3.1.2 Stellar (1)
3.1.3 Semi-circular/Linear (1)
3.1.4 Circular (1)
3.1.5 Nucleated (1)
3.1.6 Cross-shaped (1)
3.1.7 Dispersed (1)
3.1.8 T-shaped (1) (8 x 1) (8)

November 2018

3.2.1 B (GDP) (1)
3.2.2 D (Finance, real estate and business services) (1)
3.2.3 B (Electricity, gas and water) (1)
3.2.4 D (Agriculture, forestry and fishing) (1)
3.2.5 B (Manufacturing) (1)
3.2.6 C (Electricity, gas and water) (1)
3.2.7 C (77%) (1)
(7 x 1) (7)

November 2018

4.1.1 A/gridiron (1)
4.1.2 B/radial concentric/cobweb (1)
4.1.3 A/gridiron (1)
4.1.4 B/radial concentric/cobweb (1)
4.1.5 C/irregular (1)
4.1.6 A/gridiron (1)
4.1.7 C/irregular (1)
(7 x 1) (7)

November 2018

4.2.1 Coal (1)
4.2.2 Asia (1)
4.2.3 83.1% (1)
4.2.4 Americas (1)

4.2.5 Mpumalanga (1)
4.2.6 Open cast (1)
4.2.7 Increasing (1)
4.2.8 10.9% (1)
(8 x 1) (8)

November 2018

3.3.1 A process whereby an increasing percentage of people live in urban areas (1)
[CONCEPT] (1 x 1) (1)

3.3.2 As the rate of urbanisation increases the level of urbanisation increases (2)

It is a directly proportional relationship (2) **[ANY ONE]** (1 x 2) (2)

3.3.3 Drought frequency in rural areas increases rural-urban migration (2)

Flood frequency destroy crops causing people to leave rural areas (2)

Stronger El Niño increases droughts and/or floods (2)

Soil erosion decreases production on farm lands forcing people to leave (decrease in soil fertility/desertification) (2)

Stock/crop diseases/pests and stock losses/decreases in crop yields forces farmers to abandon farm lands and move to urban areas (2)

Adverse weather conditions e.g. hail storms destroy crops and this negatively affects production and leads to decreased profits (2)

[ANY TWO. LISTING ALONE CANNOT BE ACCEPTED – MUST BE QUALIFIED] (2 x 2) (4)

3.3.4 Urbanisation (percentage increase of people) has increased the demand for housing in urban areas (2)
The inability of the local government to meet this demand has led to protest actions (2)
Lack of planning from the local government to meet demands for services (2) Lack of services (electricity, water, sanitation) in informal settlements and people are not happy about this (2)
Unreliable service delivery impacts on daily activities (2)
Services are not properly maintained, therefore quality deteriorates (2)
Urbanisation increased unemployment rates which has frustrated people (2) There is an increased demand on services such as clinics and hospitals reducing accessibility for people (2)
Traffic congestion as there are not enough roads/unmaintained roads (2) Lack of space in schools due to high population numbers (2)
Protest due to forced removals and demolition of informal settlements which leaves people without shelter (2)
Protests due to lack of land ownership and access to land (2)
Protests due to competition with foreigners for houses and employment (2) People are unhappy about nepotism and corruption which is preventing them from accessing government services e.g. housing (2)
[ANY FOUR. REASONS FOR PROTEST ACTIONS MUST BE GIVEN]
(4 x 2) (8)

November 2018

3.4.1 The rural-urban fringe is the boundary/transition between the urban edge and the rural periphery where rural and urban functions are mixed (1) **[CONCEPT]** (1 x 1) (1)

3.4.2 Landing strip (1)
Large shopping centre (1)
Gated communities (1)
Out of town theme park (1)
High-tech industrial (1)
Industrial park (1)
Industrial zone (1)
Planned housing developments (1)
[ANY TWO] (2 x 1) (2)

3.4.3 Urban sprawl reduces the extent of the rural-urban fringe (2)
Cheaper land in the rural-urban fringe makes it lucrative for development (2)
Increase in world urban population (2)
Improved technologies allow people to live further from urban areas (2)
People prefer/afford to commute to urban areas (2)
Peaceful environments/larger properties/less pollution/aesthetically pleasing (2)
Counter- urbanisation is encouraged (2)
Development of infrastructure/roads increase accessibility/less congested (2)
Decentralisation of businesses (2)
Sought after location is a pull factor (2)
Higher standard of living allows people to commute over longer distances (2)
[ANY TWO] (2 x 2) (4)

3.4.4 Cheaper land is ideal as large areas are required (2)
Land values lower in the periphery for development (2) More space required for multifunctional purposes (2)
Rural atmosphere creates a more tranquil/peaceful lifestyle (2) Away from polluted urban areas (2)
Aesthetic beauty (2)
Usually built around golf courses/recreational areas/parks (2)
Can still commute to urban areas without travelling a great distance (2) Greater sense of security/less crime (2)
Provision of amenities/services within the gated community (2)
More flexible bylaws/development freedom (2)
[ANY TWO] (2 x 2) (4)

3.4.5 Encroachment on farming land (2)
Job losses amongst farm workers (2)
Food insecurity may increase (2)
Increased deforestation (2) Destroys ecosystems (2)
Reduces biodiversity (2)
Change in the local climate (2)

Loss of aesthetic appeal/tranquillity (2)
Urban sprawl/uncontrolled urban expansion/rural and urban functions mix (2) Re-zoning of land use (2)
Conflict between municipality and traditional leaders/land earmarked for land reform (2)
Increase in land values (2)
Exclude the poor from access to land/forced removals (2)
Inadequate compensation for land required for development (2)
Existing services will be put under pressure (2)
Increased waste disposal/land pollution/air pollution (2)
Increased traffic congestion (2)
Potential increase in crime (2)
[ANY TWO] (2 x 2) (4)

November 2018

4.3.1 Taxis/Minibus taxis (1) (1 x 1) (1)

4.3.2 High cost for poor service delivery/no value for money (1)

Higher costs when other transport not available (1)

No operational licences issued/unregulated (1)

During strikes commuters cannot get to work/loss of salary/productivity (1)

Reckless driving puts strain on Road Accident Fund (1) Do not pay taxes (1)

[ANY ONE] (1 x 1) (1)

4.3.3 Taxi associations were closed down (by the Minister of Transport) (1) (1 x 1) (1)

4.3.4 People can't afford to own their own private vehicles/Too poor to afford own transport (2)

Taxis are cheaper than some other public transport systems (2) People live far from their place of work and taxis are quicker (2)

Accessibility and convenience of taxis from home to place of work (2)

Other public transport systems are unreliable (2)

Taxis are more flexible in their routes and stops (2)

Historical reliance on taxis (2) Increase in toll roads (2)

Increase in petrol prices (2)

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

4.3.5 They are going to lose money as a result of less commuters (2) Competition is not good for the taxi business (2)

They will reduce their daily share of business/afraid of losing the market (2)

Taxi drivers can lose their jobs (2)

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

4.3.6 Regulate the taxi industry/taxi ranks through legislation (2)

Regulate the private service providers like Uber and Taxify (2)

Bring together the various transport providers, to foster healthy competition, and to work together in peace and harmony (2)

More vigilance from government in policing/monitoring taxi associations (2) The Minister of Transport/Police can close specific problematic routes (2)

Possible allocation of different routes to associations (2)

Effective prosecution of those who incite violence within the taxi industry (2)

Educating operators (imbizos) on responsibilities (2)

More monitoring by traffic officers (2)

Issue more operational licences where there is a demand (2)

Shut down taxi routes for a period of time during the day (2)

Implementing card systems to regulate operational routes within the taxi industry (2)

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

November 2018

4.4.1 Wheelbarrows/donkey carts/on their heads/buckets/drums/bottles/ (1) **[ANY ONE]**

4.4.2 Transportation of water is easier/more accessible (2)
It saves time to fetch the water (2)
More water can be collected therefore fewer trips (2)
Enclosed container therefore less water losses (2) Enclosed container therefore fresher water (2)
[ANY ONE] (1 x 2) (2)

4.4.3 Increase agricultural production/assists subsistence farmers (2)
Sustainable farming (2)
Higher profits (2)
Spent less time on collecting water, therefore more time for schooling (2)
Increased employment/generates income (2)
Reduces burden of time and volume required to improving the standard of living and economic viability (2) Development of home industries (2)
[ANY ONE] (1 x 2) (2)

4.4.4 Apartheid legacy of access to water in rural areas (2)
Lack of funding for improved infrastructure (2)
Not economically viable in sparsely populated areas (2)
Lack of planning and development in rural areas (2)
Population increase faster than infrastructure development (2) Poor maintenance of existing infrastructure network (2)
Mismanagement of funds (corruption) by the government (2)
Boreholes not accessible/privately owned (2)
Theft of water infrastructure (2)
Not enough qualified people to maintain water infrastructure (2)
Focus placed on urban areas and industrial development (2)
Diversion of water resources (2)
Poor/cheap quality materials used to maintain water infrastructure (2)
[ANY ONE] (1 x 2) (2)

4.4.5 The infrastructure needs to be developed for piped water to homes (2)
Build/upgrade more dams to store water (2)
Install more Jo-Jo tanks to harvest and store water (2) Digging of more boreholes to tap into groundwater sources (2)
Encouraging the recycling of grey water prevents wastage (2)
Filtration of polluted water (2)
Reversed osmosis to produce clean water (2)
Government allocating more funds to secure clean water (2)
Utilise inter-basin water transfer schemes where there is a lack of water (2)
Upgrading and maintenance of existing water network systems (2)
Education in the wise usage of water (2)
Improved farming practices to promote infiltration (2)
Use organic fertilisers to prevent pollution of water (2)
Improve catchment management systems (2)
Recharge aquifers to maintain groundwater volumes (2)
Remove alien/exotic vegetation to reduce the usage of water (2)
Improved irrigation techniques to save water (2) Subsidising of the Wello water wheel (2)
[ANY FOUR] (4 x 2) (8)

November 2018

3.5 3.5.1 Brazil (1) (1 x 1) (1)

3.5.2 'South Africa became a net red meat exporter for the first time' (1) (1 x 1) (1)

3.5.3 (a) Make less money as poor quality beef does not fetch high prices (1) Countries buy less as a result of poor quality (1)
[ANY ONE] (1 x 1) (1)

(b) Improved breeding programmes/research will increase the quality of the beef (2)
Prevent overstocking/Do not exceed carrying capacity (2) Industrial beef cattle farming (2)
Regular vaccination to prevent diseases (2) Regular health checks of cattle (2)
Free range farming improves quality of beef (2)
Genetically modified species/scientific methods to improve stock yields (2) Increase education and skills of farmers/research and development (2) More agricultural officers to educate small scale and new farmers (2) Access to funding to improve mechanisation and technology (2) Government subsidies and grants will improve processing techniques (2) Accelerate the process of land reform (2)
Improved pasturage and feeding will result in healthier cattle (2)
[ANY TWO] (2 x 2) (4)

3.5.4 Water shortages reduces stock numbers (2)

Regular droughts reduce the amount and quality of stock for export markets (2)

Small-scale (subsistence or commercial) farming can result in less production for markets (2)

Commercial farmers abandon their farms and beef production decreases (2) A huge demand for beef within South Africa decreases exports (2)

Low government subsidies push up prices (2)

Large distances to overseas markets increases the costs of exportation (2) Expensive to refrigerate beef products during transportation (2)

Cattle diseases e.g. foot and mouth/mad cow disease reduces meat availability for export markets (2)

Low quality of natural grazing reduces the amount of stock (2)

Unclear land reform policies slows down beef production while outcomes are awaiting (2)

Stock theft reduces the amount of stock (2)

Increased cost of fodder during drought/winter results in beef farmers reducing stock numbers (2)

Veld fires reduce natural grazing and therefore stock (2)

Medication against diseases expensive and increase farming costs (2) Poor exchange rate reduces profits for beef farmers (2)

Price fluctuations reduce profit (2)

Increase in production costs (machinery/labour) reduces stock numbers and profits (2)
Trade barriers discourage cattle farming (2)
Youth do not pursue farming/Loss of skilled farmers therefore beef production is low (2)
Lack of scientific breeding methods keeps beef production low (2) Limited beef processing plants limits the export of beef products (2)
Traditionally cattle is regarded as a symbol of wealth and subsistence farmers are reluctant to sell their cattle (2)
Small-scale farmers cannot access loans from banks and cannot afford the increasing production costs (2)
[ANY FOUR] (4 x 2) (8)

November 2018

4.5 4.5.1 '… contributing nearly 35% to the national gross domestic product, until at least 2017' (1)
' … produced more than 50% of South Africa's manufactured exports' (1)
[ANY ONE] (1 x 1) (1)

4.5.2 Good energy security secures uninterrupted energy supply (2)
Many skilled/unskilled labourers ensure a high level of productivity (2) Capital and technology to maintain high levels of production (2)
Wide variety of raw materials to support industrial development (2) Well-developed transport system to transport raw materials/goods (2) OR Tambo provides access to international investors (2)
A well-developed infrastructure providing essential services (2) Wide variety of established secondary and tertiary industries (2)
Johannesburg Security Exchange (JSE) is located in the PWV/Gauteng (2) Commercial and economic hub of South Africa (2)
Dense/large population creates readily available market/higher purchasing power (2)
Flat land facilitates the development of new industries (2) Access to water resources is more favourable (2)
[ANY ONE] (1 x 2) (2)

4.5.3 (a) Abundance of copper mined there (2)
Close proximity to PWV/Gauteng Industrial Region (2) Accessibility via roads/railways (2)
Savingon transport costs (2)
[ANY ONE] (1 x 2) (2)

(b) Attracts more investors to the region (2) Creates more employment opportunities (2) Entrepreneurial skills are improved (2) Skills transfer from Gauteng (2)
Creates a stable labour force (2)
Strengthens buying power (2)
Ready market for the copper industries (2)
Linked industries will be improved/developed (2)
Multiplier effect leads to the expansion of other industries (2) Improved transport links could assist Phalaborwa to export through Gauteng (2)
Infrastructural improvement and development to ensure rail/road transport of copper (2)
Social responsibility programs of copper mines will uplift local communities (2)
Supports a higher standard of living for local communities (2) Funds generated will stimulate further development (2)
[ANY ONE] (1 x 2) (2)

4.5.4 **Energy provision**
Over reliance on coal as a source of energy
(2) Coal is a non-renewable resource (2)
Coal is an unsustainable resource
(2) Negative environmental impact of
coal (2) Rising costs of energy (2)
Overload on ESKOM grid that cannot cope with demand (2)
Power cuts/load shedding affect productivity (2)
Unreliable power network (2)
Theft of power cables disrupt power provision (2)
Corruption in the coal mining sector hampers productivity (2)

Labour

Importing skills will be expensive and increase the costs of production (2)

Expensive to train labourers (2)

Disputes and industrial action/strikes will reduce productivity (2)

Brain drain, where valuable skilled people leaving South Africa (2)

Impact of illnesses/diseases lower productivity (2)

Challenges associated with the provision of minimum wages (2)

Mechanisation could lead to unemployment in the future (2)

[ANY FOUR] (4 x 2) (8)

November 2018

4.6 4.6.1 The trade between various countries/The exchange of capital, goods and services between countries (1)
[CONCEPT](1 x 1) (1)

4.6.2 Poultry/chicken/chicken products (1)(1 x 1) (1)

4.6.3 DTI (Department of Trade and Industry)(1 x 1) (1)

4.6.4 The chicken representing cheap imports is larger (and stronger) than the chicken representing the local producers which is smaller (weaker) (2) Cheaper imports will outweigh the local producers (2)
Local producers will be forced to shut down (2) Job losses and retrenchments may occur (2) Profits decline for local producers (2)
Money flows out of the country (2) DTI biased toward cheap imports (2)
Imports are subsidised therefore cheaper (2)
[ANY ONE] (1 x 2) (2)

4.6.5 Negative balance of trade (2)
Cheaper imports means less profit for local producers (2) Less products produced in South Africa (2)
Less profits generated in South Africa (2)
Local companies close down (2)
Higher unemployment (2)
Local producers cannot compete with imports (2)
Smaller markets for local producers (2)
[ANY ONE] (1 x 2) (2)

November 2019

3.1.1 C (1)
3.1.2 E (1)
3.1.3 A (1)
3.1.4 H (1)
3.1.5 I (1)
3.1.6 D (1)
3.1.7 F (1)
3.1.8 B (1)

4.6.6 South Africa belongs to trading blocs/agreements/free trade zones (e.g. BRICS, SADC, AGOA) (2)
Access to a larger international market creates more competition for local markets and pricing (2)
Fosters better international relations between countries (2) Access to a larger variety of goods (2)
More competitive prices for goods purchased (2)
Access to cheaper goods means more spending power for the poor to buy other goods (2)
Access to cheaper food contributes to food security (2) Political corruption and manipulation (2)
[ANY TWO] (2 x 2) (4)

4.6.7 Advertising campaigns/trade fairs such as promote 'local is lekker', 'made in South Africa' (2)
Incentives for local industrialists (2)
Provide funding to get subsidies to business (2)
Provide funding to get grants to farmers (2) Provide funding to get rebates to farmers (2) Provide training programs to up skill locals (2)
Use modern technology in farming to increase outputs (2)
Encourage import substitution (2)
Produce high quality products locally (2) Protectionism/increase import tariffs/decrease quotas(2) Attract foreign investments for local production (2)
[ANY TWO] (2 x 2) (4)

(1 x 8) (8)

November 2019

3.2.1 Primary (1)
3.2.2 Tertiary (1)
3.2.3 Primary (1)
3.2.4 Secondary (1)
3.2.5 Tertiary (1)
3.2.6 Secondary (1)
3.2.7 Primary (1)

(7 x 1) (7)

November 2019

4.1.1 A (1)
4.1.2 B (1)
4.1.3 B (1)
4.1.4 A (1)
4.1.5 A (1)
4.1.6 A (1)
4.1.7 B (1)
(7 x 1) (7)

November 2019

4.2.1 D (1)
4.2.2 G (1)
4.2.3 A (1)
4.2.4 I (1)
4.2.5 B (1)
4.2.6 C (1)
4.2.7 F (1)
4.2.8 E (1)
(1 x 8) (8)

November 2019

3.3.1 Correct the imbalances of the past with regards to land ownership (1) (1 x 1) (1)

3.3.2 (a) Land redistribution (1)
Land restitution (1) (2 x 1) (2)

(b) Land redistribution is where state owned land is redistributed to previously disadvantaged people (2)
Land restitution refers to the process where people who were forcefully removed from their land can claim their land back or be compensated financially (2)

[CONCEPTS] (2 x 2) (4)

3.3.3 Prioritise targeted skills development (1)
Capacity building programmes (1) (2 x 1) (2)

3.3.4 Shorter time period for land to become available (2) No costly drawn out legal processes involved (2)
No willing-buyer willing-seller clause (2)
Land is now more easily accessible and more affordable (2)
A Government advisory panel has been put in place to facilitate the process (2)

[ANY ONE] (1 x 2) (2)

3.3.5 **NEGATIVE:**
Re-allocated land may not be used productively or be cultivated at all (2)
Redistribution of land might not stimulate economic growth (2)
The move from subsistence to commercial farming might not take place on reallocated land (2)

Redistributed land is given to people without any agricultural knowledge (2)
Some beneficiaries of restitution might not move back to their land (2)
Lack of support by the government in terms of skills training and finance (2)
Subsistence farming practices may lower agricultural output (2)
Lack of farming skill of new farmers may decrease agricultural output (2)
Lack of capital may result in decreased agricultural output (2)
Infertile soil can result from bad soil management (2)
Agricultural land might not be used correctly or is used for other purposes (2)
Uncertainty can lead to neglect of farms (2)
Land could be under- utilised as farmers might not have capital to buy equipment etc. (2)
Some commercial farmers could abandon farming and enter other sectors of the economy (2)
Nepotism and corruption with regards to how land is redistributed could decrease agricultural production. (2)

POSITIVE:
Encourages more small- scale farmers to engage in farming (2)
Production from small- scale farmers can be cheaper compared to large- scale farming (2)
If more people engage in farming it will reduce food insecurity (2)
Crop production can increase as more people have access to farmland (2) Small - scale farming can reduce the cost of food as they can provide competition (2)
Exports from small-scale farmers' can increase foreign exchange (2)
Subsistence farmers will have the opportunity to become commercial farmers (2)
More people will be employed on farms and this will increase yields (2) Can counteracts rural-urban migration and keep people in rural areas to be employed on farms (2)

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

November 2019

3.4.1 Urbanisation is the process of the increasing percentage of the population living in urban areas (1)
Urban expansion is the physical/areal/spatial growth of the urban area (1)

[CONCEPTS] (2 x 1) (2)

3.4.2 Increases/upward (1)
(37% to 56%) (1)
Positive (1)

[ANY ONE] (1 x 1) (1)

3.4.3 With more people entering the city there is more demand for housing (2)
More space is required for the growth of industries (2)
More recreation areas are required (2)

More services and facilities are needed (accept examples of services) (2) Growth of the infrastructure to accommodate the increased population (accept examples of infrastructure) (2)
[ANY TWO] (2 x 2) (4)

3.4.4 **TRAFFIC CONGESTION**:
Results from insufficient roads/lanes to cater for the additional vehicles on the road (2)
There will be more vehicles on the road because of greater affordability (2) Inefficient public transport system (2)
Greater distances between workplace and home (2)

HOUSING SHORTAGES:
Increase in rural-urban migration increases urban population (2)
People cannot afford formal housing (2)
Municipalities cannot cope with the demand of RDP housing (2)

INFORMAL SETTLEMENT:
Increase in population numbers due to influx of migrants (2)
People cannot afford formal houses (2)

SERVICE PROVISION:
Municipalities cannot keep up with the demands for services which leads to strike action (2)
Understaffing/shortage of services results in long queues, time off work which reduces productivity in order to receive e.g. medical services (can explain example) (2)
Culture of non-payment for services, which leads to municipal shortfalls (2) Poor management by municipalities (2)

OVERCROWDING:
Too many people residing in a residence/flats (2)

LACK OF PLANNING:
Municipalities did not plan for the influx of people in urban areas (2)
Municipal budgets did not cater for the influx of people into urban areas (2)

URBAN BLIGHT:
Buildings are not maintained by landlords who rent apartments out (2)
Influx of people into the city cause overcrowding in apartments (2)
Lack of service provision by municipalities due to non-payment of services (2)

INNER CITY PROBLEMS:
Lack of jobs and poverty forces people into crime (2)

Insufficient policing (2)
Social ills e.g. prostitution, drug abuse, human trafficking etc. (2)
Informal trading contributes to squalor in the inner city (2)
[ANY FOUR – NO MARKS FOR NAMING OF THE PROBLEM. AWARD MARKS FOR CAUSE FOR THE PROBLEM] (4 x 2) (8)

November 2019

4.3.1 (a) Transition zone (1)

(Accept zone of decay) (1)

(Accept light industry) (1)

[ANY ONE] (1 x 1) (1)

(c) Mixed functions (accept examples e.g. light industries, residential areas, ware houses) (1)
Dilapidated buildings (1)

High land values (1)

Social evils are rife e.g. prostitution, drug trafficking, etc. (1) Illegal occupancy of buildings by unemployed persons (1)

Graffiti on walls (1)

Buildings used for functions other than their original function (brownfields) (1)

Invasion and succession of the CBD (1) Overcrowded conditions (1)
Informal traders (1)
Close to the CBD (1)

Light industries are found in the transition zone (1)

Light industries occupies small amount of space (1)

Light industries are not associated with pollution (1)

Light industries use light raw materials (1)

Light industries are close to the market as perishable goods are being manufactured (1)
[ANY TWO] (2 x 1) (2)

(c) Close to local market (CBD) (2)

Does not require large spaces (2)

Light industries can occupy multi-storey buildings (2)

Produces less air, water and water pollution (2)

Close to labour force (2)

[ANY ONE] (1 x 2) (2)

(d) Applicable to both the Transition zone and light industry:

Land use zone **A** is the area of future expansion of the CBD which has high land values (2)

Land use zone **A** is close to the CBD therefore the demand for this land will increase in the future (2)

Competition for land increases the land value (2)

[ANY ONE] (1 x 2) (2)

4.3.2 Next to recreational area (2)

On the outskirts of urban area (2) Away from industries (2)

Large dwellings (2)

Evidence of gardens (2)

Different architectural designs (2)

Near the greenbelt (aesthetic beauty) (2)

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

4.3.3 Air pollution in zone **C** would discourage higher income housing at **B** (2)

Noise pollution in zone **C** would discourage higher income housing at **B** (2) Zone **C** would take away the aesthetic appeal of zone **B** (2)

Zone **C** requires abundant and cheap land while the land values at zone **B** is high (2)

C will lower the property values of **B** (2)

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

November 2019

4.4.1 When people occupy land illegally/When people live in self-constructed structures, that is made up of any available material (1)

[CONCEPT] (1 x 1) (1)

4.4.2 Nature of construction material used (1)

Spacing among structures (1)

Emergency accessibility challenges (1) Human behaviour (1)

[ANY TWO] (2 x 1) (2)

4.4.3 People light fires, use paraffin heaters etc. (to keep warm) which are highly flammable (2)

Increased use of paraffin/gas stoves (2)

Increased use of coal or wood to make open fires (2)

Illegal electricity connections (2)

Negligence when using open fires (2)

Material used to make fires stored around shacks (2)

Increased use of candles to generate light (2)

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

4.4.4 Provide safer electricity /solar panels to these settlements (2)

Provide proper infrastructure so that emergency personnel can promptly attend to fires (accept examples) (2)

Provide regular policing services to monitor illegal connections (2)

Establish community forums to assist in case of fires (2)

Increased access to potable (clean) water (2)

Create safe after-care places to ensure safety and supervision of children (2)

Access to community halls in case of emergency (2)

Demarcate specific plots for people to settle so that there is space between houses (2)

Build formal brick houses (2)

Increased awareness programs (2)

Install fire hydrants (2)

[ANY FOUR] (4 x 2) (8)

November 2019

3.5

3.5.1 When a country is able to provide access to nutritious food for its inhabitants (2 x 2) (4)

3.5.2 Food insecurity is not great news due to the fact that people still donot have access to nutritious food (2)
People are still searching in dust bins for food (2)
People are still begging on the streets for food (2)
[ANY ONE] (1 x 2) (2)

3.5.3 People are unemployed (live on streets) (2)
They will not be able to afford the food due to high prices (2)
Unaffordable to those living on the streets (2)
Inaccessible to them (2)
[ANY TWO] (2 x 2) (4)

3.5.4 Use genetically modified crops to ensure higher yields (2)
Improved scientific farming methods which would encourage

higher yields (2)
More training and skills development would increase large-scale farming (2)
A greater variety of crops should be grown as South Africa has a diverse
climate (2)
Land reform programmes would transfer land ownership to more farmers
which would increase crop production (2)
Sustainable agriculture would serve to protect agricultural land for a long time
thereby ensuring more food production (2)
The government should provide incentives to protect small-scale farmers
which would increase food production (2)
Free trade would make importing of food easier and more accessible (2)
Planting a variety of crops would prevent soil erosion and ensure enough
fertile land (2)
Create employment opportunities for their skills base (2)
Food aid schemes can provide people with a temporary solution to a shortage
of food (2)
Community food gardens increases daily access to food, without people
having to buy food (2)
Convert from subsistence to commercial farming (2)
Invest in research to improve crops and adapt to climate change (2)
Regulate food prices to ensure accessibility (2)
Use of organic farming practices to protect soil (2)
Water and drought management/expand irrigation schemes to ensure
sustainable supply of water (2)
Promote the growth of industries to process more food (2)
Reducing food wastage will ensure that there is more food available (2)
Strict laws to prevent price fixing will provide access to food for poorer people (2)
Food fortification - nutrients are added to basic food such as bread and maize
to increase its nutrient value (2)
Zero rating (Vat exemption) of more basic food to increase accessibility (2)
Store surplus yield so that in an event of a natural disaster, people will have
access to the surplus yield that was stored (2)
[ANY FOUR] (4 x 2) (8)

November 2019

3.6.1 Kwa-Zulu-Natal (Accept KZN) (1) (1 x 1) (1)

3.6.2 Bayside Aluminium (1)
Hillside Aluminium (1)
Richards Bay Minerals (RBM) (1)
Mondi paper (1)
IQF fertiliser (1)
Sugar mill (1)
[ANY TWO] (2 x 1) (2)

3.6.3 Many smelter factories in the area (2)
Raw materials needed for the manufacturing industry are nearby (2)
Availability of cheap electricity due to nearby coal fields (2)
Availability of a labour force (2)
Well-equipped harbour to export large amounts of manufactured products (2)
Good rail and road networks to the PWV and Durban-Pinetown regions (2)
Large amounts of available land for industries (2)
Access to a large supply of water (2)
Demand for heavy machinery by local industries (2)
Accessibility to international markets (2)
Break-of-bulk point (2)
[ANY TWO] (2 x 2) (4)

3.6.4 Employment opportunities created in industries, infrastructure development(2)
Earning potential increases (2)
Buying power of locals increases/Multiplier effect (2)
Poverty is reduced (2)
Accessibility to more and better services (accept examples) (2)

Standard of living improves (2)
Access to better infrastructure (accept examples) (2)
Skills uplifted (2)
Fourth- industrial revolution skills- (technology, computer) (2)
Enhancing innovative ideas (2)
Research and entrepreneurial development (can give examples like vendors,
tuck shops, car guards, etc.) (2)
Better communication between companies and local technicians (2)
Social responsibility programs (e.g. study bursaries)
Gives opportunities for the local community to cater for the tourist market (2)
[ANY TWO]

(2 x 2) (4)

3.6.5 It has a well-developed transport network- rail, sea and road (2)
Minimum traffic congestion issues (2)
Cheaper labour costs on outskirts as compared to core industrial areas (2)
Established deep port harbour will facilitate trade (export and imports) (2)
High quality local municipality services provided (2)
Adequate supply of power from nearby coal fields (2)
Close to international airport (2)
Good telecommunication network (2)
Break-of-bulk point (2)
[ANY TWO]

(2 x 2) (4)

November 2019

4.6.1 Small business enterprises that are not registered with SARS/Government entities/ for tax purposes (1)

(1 x 1) (1)

4.6.2 Ban street trading (1)

Fine offenders R5 000 without an option of jail (1)

Facial expression/Body language of the minister (1)

[ANY ONE] (1 x 1) (1)

4.6.3 Taking business away from formal businesses (2)

Clutter formal business areas (2)

Informal businesses tend to be untidy, causing litter and have potential health

hazards (2)

They are unsightly and spoil the aesthetics of the area (2)

They tend to be associated with high levels of noise (2)

Hinder movement of pedestrians on pavement (2)

Don't contribute formally to the tax base/They are not registered (2)

Its associated with crime (2)

They discourage people from supporting formal businesses (2)

They deal in counterfeit products (2)

[ANY ONE]

(1 x 2) (2)

4.6.4 Gives them an income to support their families (2)

It reduces poverty (2)

Major source of employment (2)

Develop entrepreneurial skills (2)

Reduces the dependency on social grants because the vendors are

independent (2)

To improve their standard of living (2)

Promotes food security (2)

Able to establish relationships with formal businesses (2)

They have flexible trading hours (2)

Convenience of working from home (2)

Do not require large amounts of capital to start the business (2)

Not necessary to apply for permits therefore cutting down on costs (2)

Do not have to comply with trade regulations (2)

[ANY TWO

(2 x 2) (4)

4.6.5 This sector is not regulated (own boss) (2)

Poor legislation to guide/provides rules for this sector (2)

This sector does not pay taxes to SARS (2)

Goods that are sold are cheap and affordable (2)

Goods are not SABS approved (knockoffs) (2)

Lack of employment in the formal sector forces people to look for employment

in the informal sector (2)

Rural-urban migration leads to a decrease in employment opportunities (Push

factors) (2)

Slump in the South African economy causes large scale retrenchments (2)

Technology has taken the place of workers in most industries (2)

Increasing cost of urban life forces people to look for extra sources of income

in the informal sector (2)

Businesses in the formal sector sub-contract people from the informal sector

creating a demand for informal trader (2)

Many foreigners cannot be permanently employed in the formal sector and

the informal sector is the only opportunity for them to find employment (2)

Social grants inadequate to meet the needs of the people therefore this

supplements income (2)

Lack of skills and finance to educate themselves (2)

Difficulty in securing funding for formal business (2)

Informal businesses are easier to start up (2)

Convenience of working from home reduces costs of renting premises (2)

Do not require large amounts of capital to start the business (2)

No need to apply for permits therefore less bureaucracy (red tape) (2)

Do not have to comply with trade regulations (2)

[ANY FOUR]

(4 x 2) (8)

November 2020

3.1.1	South African City	(1)
3.1.2	Modern American western city	(1)
3.1.3	Multiple nuclei	(1)
3.1.4	Multiple nuclei	(1)
3.1.5	Third world city	(1)
3.1.6	Multiple nuclei	(1)
3.1.7	Modern American Western city	(1)
		(1 x 7) (7)

November 2020

3.2.1	C	(1)
3.2.2	B	(1)
3.2.3	C	(1)
3.2.4	A	(1)
3.2.5	B	(1)
3.2.6	D	(1)
3.2.7	B	(1)
3.2.8	D	(1)
		(8 x 1) (8)

November 2020

4.1.1	Dispersed	(1)
4.1.2	Nucleated	(1)
4.1.3	Dispersed	(1)
4.1.4	Dispersed	(1)
4.1.5	Crossroads	(1)
4.1.6	Circular	(1)
4.1.7	Linear	(1)
4.1.8	Crossroads	(1)

(8 x 1) (8)

November 2020

4.2.1 B (1)
4.2.2 D (1)
4.2.3 D (1)
4.2.4 B (1)
4.2.5 C (1)
4.2.6 C (1)
4.2.7 B (1)

(7 x 1) (7)

November 2020

3.3.1. Decrease in population numbers in rural areas (1)
[CONCEPT] (1 x 1) (1)

3.3.2 21-23 million (1) (1 x 1) (1)

3.3.3 Decrease (in population numbers) (1) (1 x 1) (1)

3.3.4 Less people paying for municipal services (market) resulting in less municipal services available (2)
Decrease in customers/buying power as people leave the rural areas (2)
Results in businesses closing and an increase in unemployment (2)
Closing of basic services (accept examples) (2)
Brain drain as skilled people leave the area (2)
Less investment as the area becomes a ghost town (2)
Decrease in production as there are more old people and fewer labourers (2)
Increasing crime brings stress to the people living in the settlement/ increase in crime/ social ills on the (vulnerable) population left in rural areas (2)
Property values decrease (2)
Poverty increases (2)
Local economy stagnates results in less employment (2)
Increase in child headed families (2)
Higher dependency on social services (2)
Travel further to serviced towns (2)

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

3.3.5 Unemployment due to businesses closing down (2)
Mechanisation requires less manual labour and leads to unemployment (2)
Increase in crime due to lack of policing (2)
Lack of recreational/cultural/entertainment facilities due to lack of investment (2)
Increase in poverty due to unemployment/low salaries (2)
Poor basic services (accept examples) due to less people/investment (2)
Travel long distances to access tertiary education (2)
Low salaries cause people to move to urban areas to seek better paying jobs (2)
Farm killings creates fear and forces farmers to move to urban areas (2) The slow pace of finalising the land reform is frustrating and forces people to move (2)
Lack of professional services in the rural areas causes people to seek those services elsewhere (2)

<u>Pull factors (from an uban perspective):</u>

Accessibility to better and efficient services in urban areas (accept explained examples) (2)
Greater variety of recreational activities attracts young adults (2)
Higher standard of living/higher wages in urban areas due to dominant secondary and tertiary activities (2)
Greater job opportunities in urban areas due to high concentration of economic activities (2)
[ANY TWO - must qualify statement] (2 x 2) (4)

3.3.6 Acceleration of land reform to enable the poor and landless to obtain land for farming (2)
Create job opportunities through the decentralisation of industries from urban areas (2)
Improve work conditions and salaries (2)
Change ownership of land from communal to private land ownership (2) Employment will increase local market's buying power resulting in further businesses opening up (2)
Creating tourism opportunities that would lead to more revenue/business opportunities for rural community (2)
Improving services in rural areas (accept examples) (2)
Tax rebates and other incentives to attract industries to re-locate to the rural area (2)
Making cheaper industrial sites available (2)
Incentives (accept examples) for professional people coming to work in rural areas (2)
Improving infrastructure such as roads for people to easily access services (2)
Hosting festivals in the rural areas to create income (2)
Promote rural areas as peaceful with aesthetic beauty (2)
Examples of eco-tourism, eco-estates (2)
Development of retirement villages (2)
Introduce measures (accept examples) to reduce crime (2)
[ANY TWO] (2 x 2) (4)

November 2020

3.4.1 Traffic congestion (1)
(1 x 1) (1)

3.4.2 Traffic is gridlocked/Traffic jam/Many cars (2)
(1 x 2) (2)

3.4.3High influx of people with cars that enter cities (2)
People living far from their working areas and as such are commuting daily (2)
Inefficient public transport system that cannot cope with commuter needs (2)
More vehicles on the road due to use of private motor vehicles (2)
Insufficient roads/lanes to cater for the additional vehicles on the road (2) Expensive parking fees and shortage of parking space forces people to park on streets and as such blocks traffic (2)
Grid iron street patterns in older parts of the city that lead to the build-up of traffic because there are too many stops (2)
Narrow streets that do not allow for the smooth flow of traffic (2)

An influx of mini bus taxis that hold up traffic while picking up and off- loading passengers (2)
Intersections/unsynchronised robots create traffic congestion (2)
Poor road quality (potholes) can slow down traffic (2)
Poor maintenance of the roads (accept examples) (2)
Load shedding resulting in traffic lights not working resulting in traffic congestion (2)
Large concentration of economic activities in cities (2)
People go to work at the same time and also come from work the same time (2)
Service delivery protests (2)
[ANY TWO] (2 x 2) (4)

3.4.4 Daily road users experience increase in general stress levels (2)
Road rage becomes a daily occurrence (2)
There will be higher rate of accidents (2)
Employees arrive late at work (2)
Poor employer/employee relations associated with late arrival at work (2)
People can face disciplinary charges and even lose their jobs for being late (2)
Forced cancellation of some meetings (2)
Loss of productivity as hours lost due to traffic congestion (2)
Stop and start increase petrol consumption which is costly for motorists (2)
Increased maintenance costs for cars of motorists (2)
Motorists can be easy target of crime/hijacking/smash and grab (2)
Delay in the delivery of goods/services (2)
Respiratory diseases due to pollution from exhausts (2)
[ANY FOUR]

November 2020

4.3.1 The uncontrolled/unplanned/formless expansion of an urban area (1)
[CONCEPT] (1 x 1) (1)

4.3.2 The new buildings (in after diagram) don't follow an organised/planned pattern (2)
Invasion into the surrounding rural areas (2)
Houses between the fingers have developed (2)
New buildings have been constructed in the outskirts/rural urban fringe (2)
[ANY ONE] (1 x 2) (2)

4.3.3 It is difficult to control the development of informal settlements which results from a high level of urbanisation (2)
They have limited control over privately owned land (2)
They do not have the capacity to control the influx of people into urban areas (2)
They do not have the budget and time to plan urban areas in a controlled manner (2)
Interference of political parties/Illegal invasion of land (2)
Some municipal officials sell land illegally/ corruption (2)
Land invasion on unoccupied land (2)
Legal protocols make it difficult for local authorities to impose the law (2)

High demand to locate in urban areas (2)
[ANY TWO] (2 x 2) (4)

4.3.4An influx of motor vehicles would cause an increase in air pollution (2)
Decentralisation of industries into the area contributes to global warming (2)
An increase in population/vehicle numbers adds to the noise/land pollution (2)
Industries in areas dumping waste water in nearby rivers (water pollution) (2)
Infrastructural and housing development necessitates the clearing of vegetation (2)
This would decrease the availability of oxygen (clean air) in the area (2) Deforestation and a lack of vegetation cover would cause increased runoff and soil erosion (2)
Changes in the local microclimate due the removal of vegetation (2)
Aesthetic beauty of the area would be diminished (2)
The habitat for ecosystems in the area would be compromised (2)
There would be a loss of biodiversity (2)
An increase in population will cause water pollution due to lack of services (2)
Infiltration is reduced affecting the water table negatively (2)
Waste management becomes difficult resulting in (various forms of) pollution (2)
Artificial surfaces lead to flash flooding due to reduced infiltration (2)
[ANY FOUR] (4 x 2) (8)

November 2020

4.4.1 When the environment is treated in a manner that threatens to harm its existence/pollution of the natural environment/destruction of the natural environment (1)
[CONCEPT] (1 x 1) (1)

4.4.2 Air pollution (1) (1 x 1) (1)

4.4.3 Smoke from industries/power station being released into the atmosphere (1)
Steam/smoke from cooling towers (1)
[ANY ONE] (1 x 1) (1)

4.4.4 It is polluting the atmosphere/diminished air quality (2)
Increases temperature of the earth/global warming/ozone depletion (2)
Increases chemicals like sulphur dioxide in the air which causes acid rain (2)
Acid rain lowers the soil fertility (2)
Soot deposits are found on exposed objects (2)
Polluted air increases the rate of smog (2)
[ANY TWO] (2 x 2) (4)

4.4.5 People will suffer from health problems such as asthma and cancer (2)
It will result in increased medical costs for the local community (2)
The formation of smog causes visibility problems (2)
Acid rain over the long term will negatively affect buildings/soil/vegetation (2)
Exploitation of labour might be done on the vulnerable job seekers (2)
[ANY TWO] (2 x 2) (4)

4.4.6 Use of renewable/non-conventional sources of energy will have less impact on the health of people (2)
Stricter control by local authorities on the levels of air pollution on a regular basis (2)
Fines imposed on factory owners for exceeding the pollution levels (2)
Incentives on tax rebates for factory owners who comply (2)
Create more green spaces and parks in the urban area (2)
Stacks of factories to be built higher so that pollutants can be dispersed into the upper atmosphere (2)
Put filters in factory stacks to reduce the amount of pollutants emitted (2)
Promote awareness campaigns/education regarding clean energy resources (2)
Promote industrial decentralisation to reduce pollution in the area (2)
[ANY TWO] (2 x 2) (4)

November 2020

3.5.1 (Ongoing) drought (1) (1 x 1) (1)
Foot and mouth disease outbreak (1)
Changing climate (1)
Choosing the correct breed (1)
Walking long distances to find grazing (1)
[ANY ONE]

3.5.2 They can adapt to the changing climate/reduced rainfall and warmer temperatures (1) (2 x 1) (2)
They can walk long distances to find grazing (1)
Adapts well in extensive and intensive agricultural environments (1)
With its adaptability and high functional efficiency (1)
[ANY TWO]

3.5.3 Provide government subsidies and grants (2)
Increase education and skills of farmers (2)
Provide access to funding from banks (2)
Government to intensify support by allocation of agricultural/veterinary services (2)
Land reform programmes where land is allocated to more farmers (2)
Create easier access to services and facilities (for example abattoirs) required for cattle farming (2) (2 x 2) (4)
More research to improve production (2)
Development of infrastructure for small scale farmers (2)
Regulation and subsidy of market prices (2)
[ANY TWO]

3.5.4 Beef will become more affordable/cheaper prices (due to greater supply) (2)
Beef will be more accessible to all people (due to increased production) (2)

Beef will provide protein which is nutritious to the diets of many people (2)
Creates more job opportunities as more meat is available for processing
resulting in income to buy nutritious food (2)
More meat will be available on the local market (due to increased production)
(2)
A variety of other products associated with beef can be produced (2)
Decrease in the need to import expensive beef (2)
More exports result in more local production creating job opportunities (2)
[ANY FOUR]

(4 x 2) (8)

November 2020

3.6.1 Johannesburg (1) (1 x 1) (1)

3.6.2 33.8% of the national GDP in current prices (1) (2 x 1) (2)
45% of SA's total economic output (1)

3.6.3 Abundant raw materials from towns found near industries (2)
Availability of cheaper energy supply mined in local area and transmitted over
short distances by ESKOM (2)
Availability of water and strategic water transfer schemes (2)
Well established transport infrastructure in the form of road, rail and air to
access raw materials and markets (2)
Available flat land facilitates easy construction of infrastructure (2)
Pretoria as an administrative capital marketed the region for industrial
development (2)
Availability of skilled/unskilled labour from high population (2)
Large population serving as a base for buying power/market (2)
Many institutions for skills development and research (2)
Railway linked to Maputo harbour for exports (2)
[ANY TWO] (2 x 2) (4)

3.6.4 (a) This region generally does not receive enough rainfall during the year (2)
High evaporation rates reduces the water supply (2)
There is high competing demand for water from different sectors of the
economy (2)
High concentration of people in the region increases the demand of water

for domestic use (2)
Poor management (accept examples) of existing water resources reduces
the supply even further (2)
Water transfer schemes are costly (2)
[ANY ONE] (1 x 2) (2)

(b) Water transfer schemes allow for water to be transferred to PWV
(Gauteng) Industrial Region (2)
Tugela Vaal water transfer scheme allows water from the Tugela River in
KZN to be transferred to the Vaal Dam (2)
Lesotho Highlands project allows water from the Katse Dam to be
transferred to the Vaal Dam (2)
Recycling of water puts less pressure on the usage of the water (2)
Water restrictions (2)
Higher tariffs to limit the usage of water increasing (2)
[ANY ONE]
(1 x 2) (2) (1 x 2) (2)

(c) High influx of people from other parts of South Africa (2)
High influx of illegal immigrants exceeding amount of employment
opportunities available (2)
Increase in unskilled labour force (2)
Lack of Fourth Industrial Revolution skills (2)
Retrenchments due to unstable economic climate (2)
COVID-19 restrictions and protocols (2)
Industries use machinery/robots to do work which replaces people (2)
Lack of work experience (2)
[ANY TWO] (2 x 2) (4)

November 2020

4.5.1 West Coast Corrosion Protection/WCCP (1) (1 x 1) (1)

4.5.2 Corrosion protection (1)
It will service a range of marine vessels (1) (1 x 1) (1)
[ANY ONE]

4.5.3 Natural bay (natural port) (1)
Flat land (1) (1 x 1) (1)
Large amount of space available (1)
[ANY ONE

4.5.4 Road network in Saldanha Bay will be extended/upgraded (2)
Road network linking Saldanha Bay to other areas will be extended/upgraded (2
Harbour facilities will be improved and extended (2)
Railway network in the vicinity will be upgraded for the

transport of bulky goods (2)
Bridges will be constructed to facilitate easier movement of goods/people (2)
Links between the different modes of transport (accept examples) improves
accessibility/facilitate economic growth in the region (2)
[ANY TWO] (2 x 2) (4)

4.5.5 **Positive:**
Create employment opportunities (2)
Increased earning potential (2)
Greater skills development based on greater demand (2)
Possible potential for promotions (2)
Improved working conditions and employee benefits associated with working
with large companies (2)
Upliftment of standard of living/multiplier effect (2)
Alleviate poverty (2)
Negative:
Skilled workers from other areas are preferred above the locals of the area (2)
Smaller local businesses in direct competition with the investors might close
with possible job losses (2)
Locals in the area might not have the necessary qualifications for the
employment opportunities (2)
Susceptible to corruption, nepotism, bribery in order to secure jobs (2)
[ANY TWO] (2 x 2) (4)

4.5.6 Development of more facilities (accept explained examples) (2)
Improvement in services (accept explained examples) (2)
Learnerships/Bursaries for the youth in the community (2)
Sports/Recreational/Cultural sponsorships (2)
Partnerships with the community to reduce crime and youth empowerment (2)
Feeding schemes for disadvantaged members of the community (2)
Provision of PPE's/ medicines in cases of disease outbreaks (2)
Skills development programs (2)
Improvement of infrastructure (accept explained examples) (2)
Funding/Create community employment projects (2)
Local people should be given preference to employment opportunities (2)
Funding and upgrading of local schools (2)
Funding environmental cleaning projects (2) (2 x 2) (4)

November 2020

4.6.1 (Street) vendor/hawker (1) (1 x 1) (1)
Spaza shop (1)
[ANY ONE]

4.6.2 750 000 (1) (1 x 1) (1)

4.6.3 'There are few barriers to entering the informal sector' (1)
'Operating from home (spaza-shops)' (1) (1 x 1) (1)

4.6.4 Women have to fulfil domestic duties and the informal sector allows them to do both from home (2)
There are few barriers to entering the informal sector (2)
The informal market is lucrative and provide easy employment opportunities (2)
Smaller number of women have the required education and technical skills for
jobs in the formal sector (2)
Women normally have to head up households (breadwinners) as single
mothers (2)
Flexible hours allow women to perform business and domestic duties (2)
Gender inequality in the workplace causes less women to be employed (2)

(2 x 2) (4)

4.6.5 Creates employment for (local) people that cannot find employment in theformal sector (2)
People are able to earn an income which increases buying power, resulting in
an increase in the production of goods (2)
Informal sector businesses purchase goods to sell from the formal sector
increasing their market (2)
Multiplier effect stimulates other formal businesses (2)
Businesses in the formal sector sub-contract people from the informal
sector creating more employment (2)
By buying goods (accept examples) they pay VAT, this contributes to the tax
of the country (2)
Goods that are sold are cheap and affordable creating a bigger market thus
increasing production and trade (2)
The informal sector engages in partnerships with formal businesses (accept
examples) that stimulates business (2)
People employed in the informal sector develop entrepreneurial skills needed
in the economy (2)