basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

SENIOR CERTIFICATE/ NATIONAL SENIOR CERTIFICATE

GRADE 12

GEOGRAPHY P1

NOVEMBER 2020(2)

MARKING GUIDELINES

MARKS: 225

These marking guidelines consist of 24 pages.

Marking Guidelines

The following marking guidelines have been developed to standardise marking in all provinces.

Marking

- ALL selected questions MUST be marked, irrespective of whether it is correct or incorrect
- Candidates are expected to make a choice of THREE questions to answer. If all questions are answered, ONLY the first three questions are marked.
- A clear, neat tick must be used: ✓
  - If ONE mark is allocated, ONE tick must be used: ✓
  - If TWO marks are allocated, TWO ticks must be used: ✓✓
  - The tick must be placed at the FACT that a mark is being allocated for
  - Ticks must be kept SMALL, as various layers of moderation may take place
- Incorrect answers must be marked with a clear, neat cross: ✗
  - Use MORE than one cross across a paragraph/discussion style questions to indicate that all facts have been considered
  - Do NOT draw a line through an incorrect answer
  - Do NOT underline the incorrect facts
- Where the maximum marks have been allocated in the first few sentences of a paragraph, place an **M** over the remainder of the text to indicate the maximum marks have been achieved

For the following action words, ONE word answers are acceptable: **give**, **list**, **name**, **state**, **identify**
For the following action words, a FULL sentence must be written: **describe**, **explain**, **evaluate**, **analyse**, **suggest**, **differentiate**, **distinguish**, **define**, **discuss**, **why**, **how**
The following action words need to be read within its context to determine whether a ONE word answer or FULL sentence is required: **provide**, **what**, **tabulate**

Totalling and transferring of marks

- Each sub-question must be totalled
  - Each question has six sub-sections, therefore six sub-totals per question required
  - Sub-section totals to be written in right hand margin at the end of the sub-section and underlined
  - Sub-total must be written legibly
  - Leave room to write in moderated marks on different levels
- Total sub-totals and transfer total to top left hand margin next to question number
- Transfer total to cover of answer book

Moderation

Marking on each level of moderation is done in the same way as the initial marking. All guidelines for marking must be adhered to.

If a mark for a sub-question is changed after moderation, the moderator must strike through the marker's mark and write down the new mark. ~~12~~ 16

The total for the question must be re-calculated, and similarly be struck off and the new total to be written down.

~~6~~ 3

3

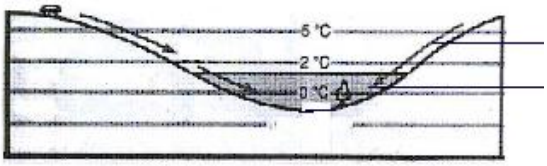
QUESTION 1

1.1.1 A (South Atlantic High) (1) ✓
1.1.2 B (Kalahari High) (1) ✓
1.1.3 B (South Indian) (1) ✗ **2**

1.2.1 Melting snow ✓
1.2.2 Mouth ✗
1.2.3 Third order ✓ **2**

1.3.1 Katabatic ✗
1.3.2 **1** occurs during the day while **2** occurs at night ✓✓

1.3.3 Cold air rolls down into the valley and forms an inversion ✓✓



Air flows downslope ✓✓ **6**

1.4.1 Shape of front concave
Steep gradient of front ✓✗

1.4.2 Warm air undercuts the cold air ✗

1.4.3 Air behind the cold front is colder ✓✓ than the air in front. Cold air moves faster ✓✓ than warm air ahead of it. Cold front catches up with the warm front ✓✓. **7**

1.5.1 (a) A river that only flows all year round ✗

(b) The river channel is wide ✗

(c) Regularity ✓✓ of rainfall and the soil type ✓✓ over which the streams flow. **4**

1.6.1 Gauteng ✓ and the Eastern Cape ✗

1.6.2 Mining waste dumped ✓ in the river and industries pollute ✓ the water.

1.6.3 The cost of food production will increase ✓✓ at it is costly to buy purified water. Farmers will have to buy more chemicals ✓✓ to purify water. Chemicals cost a lot and this ✓✓ will increase production costs. It will be costly to purify water ✓✓ for use in electricity generation. These costs will be included in electricity prices. Costs will increase the price of electricity during production. M There will be less clean water to generate hydro- electricity. **11**

SECTION A: CLIMATE, WEATHER AND GEOMORPHOLOGY

QUESTION 1

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)

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) (8 x 1) (8)

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)

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)

1.5 1.5.1 At the point where the river enters the sea/river mouth/lakes (1) (1 x 1)

1.5.2 They are home to hundreds of millions of people (1) (1 x 1) (1)

1.5.3 Groundwater being pumped from aquifers (permeable rocks) (1) (1 x 1) (1)

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)

1.6 1.6.1 When a river erodes (downwards) again because it is re-energised (1)
[CONCEPT] (1 x 1) (1)

1.6.2 Lower course/Old stage (1) (1 x 1) (1)

1.6.3 Wide floodplain (almost flat) (1)
Wide river valley (1)
Meanders are visible (1)
River enters the sea/river mouth (1)
Presence of terraces (1)
Evidence of lateral erosion (1)
At the sea/ocean (label) (1)
Entrenched meanders (1)
Shading shows a deepening of the river channel (1)
[ANY ONE] (1 x 1) (1)

1.6.4 Gradient is steeper (river flows down a slope) (2)
Turbulent flow (fast flowing river has more energy) after rejuvenation (2)
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] (1 x 2) (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] (1 x 2) (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] (2 x 2) (4)
[75]

QUESTION 2

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)

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) (7 x 1) (7)

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)

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 surroundings (1)
[CONCEPT] (1 x 1) (1)

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)

2.5 2.5.1 Process in which one river captures/robs the headwaters of another river (1)
[CONCEPT] (1 x 1) (1)

2.5.2 1 – elbow of capture (1)
2 – wind/dry gap (1) (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)

2.6 2.6.1 Ungraded (1) (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] (2 x 2) (4)

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)

[75]

SECTION B: RURAL AND URBAN SETTLEMENTS AND ECONOMIC GEOGRAPHY OF SOUTH AFRICA

QUESTION 3

3.1 3.1.1 Sector (1)

3.1.2 Concentric zone (1)

3.1.3 Sector (1)

3.1.4 Multiple nuclei (1)

3.1.5 Concentric zone (1)

3.1.6 Multiple nuclei (1)

3.1.7 Sector (1) (7 x 1) (7)

3.2 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)

3.3 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)
Pull factors (from an uban perspective):
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)

3.4 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)

3.4.3 High 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] (4 x 2) (8)

3.5 3.5.1 (Ongoing) drought (1)
Foot and mouth disease outbreak (1)
Changing climate (1)
Choosing the correct breed (1)
Walking long distances to find grazing (1)
[ANY ONE] (1 x 1) (1)

3.5.2 They can adapt to the changing climate/reduced rainfall and warmer temperatures (1)
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] (2 x 1) (2)

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)
More research to improve production (2)
Development of infrastructure for small scale farmers (2)
Regulation and subsidy of market prices (2)
[ANY TWO] (2 x 2) (4)

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)

3.6 3.6.1 Johannesburg (1) (1 x 1) (1)

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

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)

(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)
[75]

QUESTION 4

4.1 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)

4.2 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)

4.3 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)

4.3.4 An 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)

4.4 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)

4.5 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)
[ANY ONE] (1 x 1) (1)

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

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

4.6 4.6.1 (Street) vendor/hawker (1)
Spaza shop (1)
[ANY ONE] (1 x 1) (1)

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

4.6.5 Creates employment for (local) people that cannot find employment in the formal 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)
[ANY FOUR] (4 x 2) (8)
[75]

TOTAL: 225