



KWAZULU-NATAL PROVINCE

EDUCATION
REPUBLIC OF SOUTH AFRICA

CURRICULUM GRADE 10 -12 DIRECTORATE

NCS (CAPS)

REVISION DOCUMENT GRADE 12

SOLUTIONS

GEOGRAPHY

Stanmorephysics

2023

MID – LATITUDE CYCLONE

ACTIVITY 1.1 - SOLUTIONS

1.1.1 winter (1)

1.1.2 -(10/12/13) June/ Date (1)

-Cold fronts in the interior of Western/Eastern Cape (1)

-High amount of rainfall (1)

-Significant drop in temperature (1)

1.1.3 Northwards movement of the high-pressure belts/(anticyclones) /ITCZ (2)

1.1.4 Backing (1)

1.1.5 The wind direction associated with the cold front will change

change from northwest to south -west as the cold front moves over the Western Cape (2)

1.1.6 **Positive:**

Brings much needed moisture to the soil (2)

Revival of biodiversity/ ecosystems/habitat (2)

Water available for wildlife (2)

Water allows for more grazing land/veld (2)

Fill up (via surface runoff) rivers (2)

Negative:

(Low-lying) areas are flooded (2)

Soil erosion will increase (2)


Increase salination of rivers (2)

Saturation of soil/ waterlogged conditions (2)

Rockall/ mass movements on steeper slopes (2)



ACTIVITY 12 – SOLUTIONS

- 1.2.1 Mediterranean (1) (1 x 1) (1)
- 1.2.2 Cool wet (winters) (1) (1 x 1) (1)
- 1.2.3 The shifting of the ITCZ (2)
Sun is now overhead of the Tropic of Cancer/follow the shifting rays of the sun/apparent movement of the sun (2) (1 x 2) (2)
- 1.2.4  Decrease in temperature (2)
Pressure decreases (but increases with cold sector) (2)
Cloud cover increases/cumulonimbus clouds form (2)
More precipitation/heavy rain/snow/hail/thunderstorms (2)
Humidity decreases (2)
Wind direction changes (backs northwest to southwest) (2)
Increase in wind speed/sudden gusty winds (2) (2 x 2) (4)
- 1.2.5 Heavy rainfall will make tourist destinations inaccessible (2)
Rock falls and landslides decrease accessibility (2)
Strong winds decrease accessibility (2)
Rough seas and high waves decrease accessibility (2)
Rough seas decrease business for tour operators (2)
Snow on the mountains makes hiking trails inaccessible (2)
Outdoor activities will be affected by the poor weather/dangerous conditions (can give examples rain, wind, cold and hail) (2)
Travel arrangements of tourists will be affected by poor weather conditions (examples flights, tour buses, sea travel) (2)
The aesthetical appeal of the tourist attraction may be diminished by poor weather conditions (example debris on the beaches) (2)
Reduced income of tourism sector due to poor weather conditions (cancellation of bookings) (2) (4 x 2) (8)

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ACTIVITY 1.3 - SOLUTIONS

1.3.1 Coastal Low (1)

1.3.2 It is a **moving** system (2)



1.3.3 Moist air is carried over the land at B (2)

Onshore winds at B (2)

Dry air is moving from land to sea at C (2)

Offshore winds at C (2)

1.3.4 23.01.2022 (Date) (2)

The high-pressure cells are in a Southerly position (2)

Cold fronts/mid-latitude cyclones are further south (2)

A tropical depression is evident (2)

1.3.5 (a) E (2)

(b) E has a higher pressure (1032hPa) reading than D (1024hPa) (2)

D has a lower pressure (1024hPa) reading than E (1032hPa) (2)

TROPICAL CYCLONE

ACTIVITY 1.4. SOLUTIONS

1.4.1 Z (1)

1.4.2 Y (1)

1.4.3 Y (1)

1.4.4 Y (1)

1.4.5 Z (1)



1.4.6 Y (1)

1.4.7 Z (1)



(7 x 1) (7)

ACTIVITY 1.5- SOLUTIONS

- 1.5.1 Date /January indicates summer (1)
Mozambique (1)
Madagascar (1)
Beira (in Mozambique) (1)
South-westerly movement (1)
Clockwise circulation symbol (1)
Located over the South Indian Ocean (1)
Mozambique channel (1)
Tropical Cyclone (Eloise) (1)
Map of Southern Africa (1)
 **[ANY ONE]** (1 x 1) (1)
- 1.5.2 Heavy rainfall / Rainfall of 250mm in 24 hours (1)
Wind speeds up to 140-160 km/hr (1)
(2 x 1) (2)
- 1.5.3 Increased frictional drag (2)
System moves over land (2)
Decrease in latent heat (2)
Decrease in moisture levels (2)
[ANY ONE] (1 x 2) (2)
- 1.5.4 Movement over the warm Mozambique channel (2)
Less friction over Warm Mozambique channel/ ocean (2)
High temperatures/warm ocean results in increased evaporation (2)
Increased condensation results in the release of latent heat (2)
Latent heat drives the system and increases the wind speed (2)
- 1.5.5 **PRECAUTIONARY MEASURES AND MANAGEMENT STRATEGIES**
Early warning systems put in place (2)
Sandbags to reduce flooding (2)
Reinforcing existing infrastructure (2)
Awareness and education programmes (2)
Evacuation protocols and drills (2)
Stocking up of emergency supplies and necessities (2)
Identify high lying areas to evacuate people (2)
Build above flood lines/ coastal zoning (2) Tracking the movement of the tropical cyclone
Good forecasting/ Use of media to update regularly (2)
Improve accessibility to evacuate people (2)
Move people to higher ground (2)
Development of good rescue and emergency services (2)
Storage/ provision of clean water and food supplies (2)
Rescue personnel, police, medical personnel on standby (2)
Maintain coastal vegetation to act as a buffer against storm surges (2)
Request National and international aid if necessary (2)
 **[ANY THREE- ACCEPT EXAMPLES]** (3 x 2) (6)

ACTIVITY 1.6 - SOLUTIONS

1.6.1. 20 February (1) (1x1) (1)

1.6.2. Batsirai is located in the tropical easterly wind belt (2) (1x2) (2)

Driven by the easterlies /trade winds (2)

[ANY ONE]

1.6.3 The tropical cyclone reached the land (Madagascar) (2)

Frictional drag over Madagascar (2)

Decrease in moisture content (2)

Less latent heat available (2)

The tropical cyclone entered higher latitudes/cooler waters (2)

Atmospheric pressure increases (2)

[ANY TWO]

(2 x 2) (4)

1.6.4 Coastal areas would be flooded (2)

Re-shaping of coastline (accept examples) (2)

Increased soil erosion (2)

Possibility of mass movement (accept examples) (2)

Destruction of biodiversity (accept examples) (2)

Destruction of habitats (accept examples) (2)

Pollution of water sources (2)

Pollution of soil (2)

(Accept) Damage to Infrastructure (accept examples) (2)

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

1.6.5 The area is prone to tropical cyclones (2)

To observe the path of a tropical cyclone (2)

To observe the development of a tropical cyclone (2)

Enables advanced weather predictions (2)

Enables the collection of data on rainfall rates/wind speed (2)

Effective in providing early warning systems (2)

To reduce the level of impact of the system (accept examples) (2)

To be prepared and limit possible damages (accept examples) (2)


To have enough time to evacuate (2)

To plan/prepare emergency procedures (accept examples) (2)

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



ACTIVITY 1.7 – SOLUTION

- 1.7.1  Clockwise movement of air (1)
Position of the leading left quadrant (1)
Wind direction shown by the symbol of the eye (1) [ANY ONE]
- 1.7.2. Pressure in the centre is significantly below 1000 hPa (1)
Well-developed eye (1)
The area covered by the tropical cyclone is large (450km- 950km) (1)
The leading left quadrant (dangerous semicircle) is visible (1)
Isobars are closely spaced/pressure gradient is very steep (1)
(ANY TWO]
- 1.7.3. There will be no cloud cover/clear skies (2)
- 1.7.4. Descending air heats up resulting in no condensation (2)
Adiabatic heating reduces moisture / becomes dry (2)
- 1.7.5. (a) Air pressure decreases and wind speed increases (2)
(b) Both air pressure and wind speed decreases (2)
- 1.7.6. It experiences the most intense weather conditions
(Accept examples of severe weather conditions) (2)
- 1.7.7. When the forward movement combines with the rotation of the system (2)

ACTIVITY 1.8. SOLUTIONS

- 1.8.1. Thermal low (1) Accept heat low (1)
- 1.8.2 High temperatures (2)
- Bending of the isobars towards the low-pressure (2)
- Outward extension/bulge of isobars away from the high-pressure centre (2)
- Rising warm air creates low pressure system (2)
- 1.8.3 Elongation of isobars (2)
- 1.8.4 Anticlockwise circulation (from the high pressure) (2)
Ridge extends towards the land (low pressure) (2)
Elongation of isobars occurs towards the coastline (2)
- 1.8.5 Results in SSE winds (anti-clockwise circulation from the high pressure) (2)
Increase in wind speeds/strong /gale force winds (2)
Precipitation in the form of rainfall (2)



ACTIVITY 1.9 SOLUTIONS

1.9 1. Kalahari High (1)

Coastal low (1) Accept Mid-latitude cyclone (1)

1.9.2 Accept in the range 43.9°C to 44,1 °C (1)

1.9.3 The escarpment has a greater vertical height (elevation) (2)

Greater frictional drag as air moves down the escarpment (increases temperature) (2)

Air has a greater vertical descent down the escarpment (1200m-0m) and heats up more (2) Increased heating (DALR at 1°C/100m) due to vertical distance of the escarpment (2)

1.9.4 Plants (Natural vegetation / Pasture) dry out due to the hot dry winds (2)

Reduction of biodiversity (fauna and flora) within the natural environment (2)

Declining ecosystems will disrupt food chains and food web networks (2)

Higher evaporation reduces soil moisture content (2)

Increased loss of moisture in soil will accelerate soil erosion (2)

The land is left bare and vulnerable and accelerates soil erosion reducing soil fertility (2)

Higher levels of carbon dioxide will increase atmospheric pollution (2)

Water from shallow pools, small non-perennial water bodies can evaporate (2)

Natural vegetation is destroyed by veld fires (2)

Loss of habitat/damage to ecosystems due to veldfires (2)

Increase in carbon dioxide because of veldfires impacts negatively on physical environment (2)

Ash of veldfires act as fertilisers for the development and growth of new vegetation (2) Veldfires can promote seed germination (2)

ACTIVITY 1.10 - SOLUTIONS

1.10.1 A-South Atlantic High (1)

B- South Indian High (1)

1.10.2 Summer (1)

1.10.3 -Line thunderstorms (heavy rainfall) occur in the interior (2)

-Cumulonimbus clouds/lightning/hail (2)

- Moisture front developed (2)

-Air from the east/west reaches the interior (2)



1.10.4 The boundary (dry line) between two air masses of different moisture content (2)

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1.10.5 Heavy rainfall (1) Hail (1) Thunderstorm (1)

1.10.6 -Convergence of warm moist air and cold dry air (2)

- Moisture front develops (2)

- Cold dry air undercuts warm moist air (2)

- Warm moist air rises (2)

- Condensation occurs on the eastern side of the moisture front (2)

- Cumulonimbus clouds develop (2)



Valley climates solutions

ACTIVITY 1.11: SOLUTIONS

1.11.1 B

1.11.2 C

1.11.3 B

1.11.4 B

1.11.5 C

1.11.6 A

1.11.7 D

1.11.8 C

(8 x 1) (8)

ACTIVITY 1.12: SOLUTIONS

1.12.1 Terrestrial

1.12.2 Night

1.12.3 Katabatic

1.12.4 B

1.12.5 Frost

1.12.6 Thermal belt (accept: inversion layer)

1.12.7 Night

(7 x 1) (1)

ACTIVITY 1.13: SOLUTIONS

1.13.1 Direction in which slopes face in relation to the sun's rays. (2)

(1x2) (2)

1.13.2 B

1.13.3 In the southern hemisphere (B) the north facing slope receives direct rays of the sun. (2)

In the northern hemisphere (A) the south facing slope receives direct rays of the sun. (2)



In the southern hemisphere (B) the south facing slope receives oblique rays of the sun. (2)

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In the northern hemisphere (A) the north facing receives oblique rays of the sun. (2) (1 x 2) (2)

[ANY ONE]

1.13.4 (a) difference in temperatures on the different slopes in the valley. (2)

The slope that faces the sun will have higher temperatures. (2)

(1 x 2) (2)

The slope that faces away from the sun will have lower temperatures. (2) (Accept responses to specific slopes)

(b) Evaporation rates differ on each slope. (2)

The slope that faces the sun will have higher evaporation rates/will be drier. (2)

The slope that faces away from the sun will have lower evaporation rates/will have higher moisture content. (2)

(Accept responses to specific slopes)

[ANY ONE]

1.13.5 (a) Different types of crops have to be grown on the north and south facing slopes. (2)

(1 x 2) (2)

North facing slopes favour the growth of crops that require more sunlight and less moisture (Accept examples – deciduous fruit). (2)

South facing slopes encourage the growth of crops that require cooler conditions and more moisture (accept examples). (2)

(1 x 2) (2)

[ANY ONE]

(b) People prefer to settle on the warmer north facing slopes. (2)

Save on energy costs on the north facing slopes. (2)

South facing slopes require more and expensive heating methods for settlements. (2)

Cooler south facing slopes are not ideal for human settlements. (2)

(2 x 2) (4)

[ANY TWO – MUST REFER TO SPECIFIC SLOPES]

ACTIVITY 1.14: SOLUTIONS

1.14.1 An urban area of higher temperature surrounded by a rural area of lower temperature. (2)

(1 x 2) (2)

1.14.2 **Accept:** 34.6°C - 34.8 °C (1)

(1 x 1) (1)

1.14.3 High building density traps heat. (2)

Tall buildings create a large surface area for heating. (2)

Multiple reflections of heat between buildings. (2)



Dark painted buildings/roofs absorb heat. (2)
Building material (accept examples) results in more heat being absorbed. (2)

Tall buildings limit air flow in cities. (2)

Air conditioning used in the buildings cause more heat. (2)

(2 x 2) (4)

[ANY TWO]

1.14.4 Paint roofs or buildings with light colours. (2)

Develop roof top gardens. (2)

Replace tar and concrete with cobble stones. (2)

Minimise large windows/structures. (2)

Using green energy in buildings. (2)

Planned areas for parks/ planting trees/ water features. (2)

Decrease building density. (2)

(4 x 2) (4)

[ANY FOUR]

ACTIVITY 1.15:SOLUTIONS

1.15.1 Day

1.15.2 Day

1.15.3 Night

1.15.4 Day

1.15.5 Day

1.15.6 Night

1.15.7 Night

(7 x 1) (7)

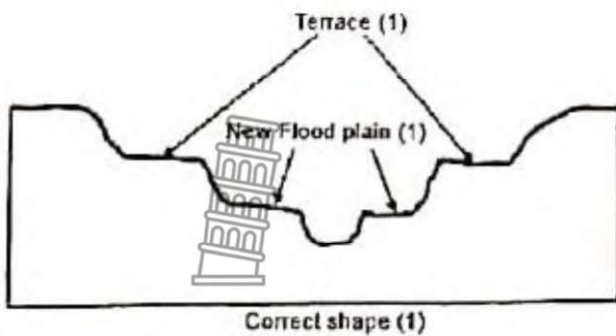


GEOMORPHOLOGY SOLUTIONS 2023

- 2.1.1
- Lower (1)
 - Accept:
 - Old/Plain stage
- 2.1.2
- Decreases the velocity of the water which causes the river to meander (2)
 - River will erode laterally/cut through less resistant rock (2)
- [ANY ONE]**
- 2.1.3
- Erosion due to faster flowing water removes material that results in an undercut slope (2)
 - Sediments are deposited due to decreasing velocity which results in the formation of the slip-off slope (2)
- 2.1.4
- Faster flowing water causes erosion/undercutting on the outer bank (2)
 - River deposits material on the inner bank (2)
 - Meander neck narrows due to continuous erosion and deposition (2)
 - The neck is broken through due to heavy rainfall/flooding/increase volume of water (2)
 - Meander loop is now separated from the main channel (2)
 - The main river develops a straight stream (2)
 - Cut-off meander is now known as an oxbow lake (2)
- [ANY FOUR]**
- 2.2.1 The **side view** of a river from **source to mouth** (2)
- [CONCEPT]**
- 2.2.2 Smooth/Graded (1)
Concave shaped (1)
Steeper in the high-lying area (1)
Gentle in the low-lying area (1)
(Accept) Permanent base level (1)
(Accept) No temporary base levels/ waterfall (1)
- [ANY TWO]**
- 2.2.3 Graded (1)
- 2.2.4 Temporary base levels not evident (2)
It has a smooth concave profile (2)
- [ANY ONE]**
- 2.2.5 Temporary base level: waterfall (1)
Permanent base level: sea (1)
- 2.2.6 Erosion of softer layers of rock below waterfall (2)
Headward/backward erosion will cause the waterfall to migrate upstream (2)
Downward erosion deepens the plunge pool (2)
Hard layer of rock falls into plunge pool as not supported by underlying softer rock (2)
Deposition of sediments in plunge pool and continues towards the lower course (2)
Equilibrium between erosion and deposition will maintain a graded state (2)
- [ANY THREE]**
- 2.3.1 A process where a river regains energy and begins to erode vertical /downwards again
(concept)
- 2.3.2
- Change in gradient (Isostatic uplift/ Drop in the sea level) (1)

- Increase in the volume of water (increase in rainfall/ river capture/ joining of a faster tributary) (1)

2.3.3



Mark distribution

Mark for correct shape of cross section (1)

Mark for indicating new flood plain on cross section (1)

Mark for indicating ANY ONE terrace on cross section (1)

2.3.4

- A rejuvenated river cuts into the valley floor (2)
- Down cutting creates a new flood plain (2)
- A step forms between the old and new flood plains (2)

[any TWO]

2.3.5

- Steepness of slopes will hamper construction of roads/ railway lines (2)
- Softness of the underlying rocks causes instability to roads/railway construction (2)
- Terraces make it costly to build bridges (2)
- Wide flood plain makes it difficult to build bridges (2)

INSTRUCTIONS FOR PART MARKING – MAXIMUM OF TWO

- Steepness of slopes (1)
- Softness of the underlying rocks (1)
- Terraces (1)
- Wide flood plain (1)

2.4.1 Y (1)

2.4.2

- Wind gap (1), Elbow of capture (1)
- Misfit stream (1), River gravel (1)
- Captor/pirate stream (1)
- Captured/beheaded stream (1)
- Watershed between river X and Y had been eroded (1)
- River Y cut off from its original water supply (1)
- The water in the upper stream of river Y is diverted to river X (1)
- River X cutting backwards (head ward erosion) through the watershed towards river Y (1)
- Volume of water in one of the rivers (X/W) is greater / Line indicating the river is thicker (X/W) indicating greater volume (1)

[ANY TWO]

2.4.3

- Rivers that flow over softer/less resistant rock cause an increase in headward erosion (2)
- Rivers that flow over hard/more resistant rock limits headward erosion (2)

[ANY ONE]

2.4.4

- The increasing volume of water increases the erosive power of the river (2)
- The increasing velocity of water results in more erosive ability (2)
- Re-energises the captor stream (2)

[ANY ONE]

- 2.4.5
- More water at **W** (weirs, canals, furrows, water points) available for farming (2)
 - Silt will be deposited on the floodplain around **W** resulting in more fertile soil increasing farming activities over a wide area/large-scale crop farming (2)
 - Increased farming at **W** will increase employment opportunities (2)
 - Increased production at **W** will result in greater profits/exports (2)
 - Improvement in infrastructure at **W** due to increased farming (2)
 - Encourages the establishment of industries linked to agricultural activities at **W** (2)
 - Increased production leads to food security (2)
 - More water available to generate hydro-electricity to supply power (2)
 - More water will create more grazing to improve livestock farming (2)

[ANY FOUR]

2.5.1 Toxic coal mine effluent (waste) (1)

2.5.2 Arsenic copper (1)

Lead (1)

Manganese (1)

(ANY TWO)

2.5.3 '...the residents of the affected communities were not warned about the potential hazards until two weeks later.' (2)

2.5.4 The tourism sector (Game reserve) could be affected leading to a decline to tourists (2)

Fish in the river could have been killed by effluent, resulting to a decrease in profits (2)

Increased costs of restoring the quality of the rivers (2)

(ANYONE)

2.5.5 **ENVIRONMENTAL IMPORTANCE**

Rivers are crucial for habitats of water animal (2)

Good river management encourages eco-tourism (2)

Good quality of water sustains ecosystems (2)

Decreases water borne diseases therefore health system maintained (2)

Encourages the natural growth of vegetation (2)

Natural water purification (2)

Control of floods (2)

STRATEGIES TO MAINTAIN FUTURE WATER QUALITY

Recycling water for reuse (2)

Imposing fines to polluters (2)

Testing of water quality (2)

Vegetating/ afforestation strategies (2)

Educate farmers on proper methods of farming (2)

Wetlands must be conserved (2)

Buffering wetlands, catchment areas and drainage basins (2)

Awareness campaigns proper ways of saving water (2)

(ANY FOUR-MUST REFER TO BOTH ASPECTS)

Activity 2.6

2.6.1 The upper reaches of a drainage basin (2)

(concept)

2.6.2 Industry (1)



Cultivated land (1)
Settlement (1)
Orchard/ farming (1)
(ANY ONE)

2.6.3 **Cultivated land**

The use of chemicals/ fertilisers/ pesticides can be swept into rivers through runoff after rainfall (2)
Resulting into eutrophication/ algae bloom (2)

Industries

Wastewater or chemicals from industries spill to rivers resulting to water pollution (2)

Health system of the river could be destroyed (2)

[ANY TWO- MUST REFER TO BOTH ASPECTS]

2.6.4 Recycling water for reuse (2)

Imposing fines to polluters (2)

Testing of water quality (2)

Vegetating/ afforestation strategies (2)

Educate farmers on proper methods of farming (2)

Wetlands must be conserved (2)

Buffering wetlands, catchment areas and drainage basins (2)

Awareness campaigns proper ways of saving water (2)

(ANY FOUR)





Rural settlement solutions

Activity 3.1 solutions

3.1.1 C (1)

3.1.2 B (1)

3.1.3 C (1)

3.1.4 A (1)

3.1.5 C (1)

3.1.6 B (1)

3.1.7 A (1)

3.1.8 C (1)

Activity 3.2 Solutions

3.2.1 A

3.2.2 B

3.2.3 A

3.2.4 D

3.2.5 B

3.2.6 C

3.2.7 A

3.2.8 D

Activity 3.3 Solutions

3.3.1 Y

3.3.2 Z

3.3.3 Z

3.3.4 Y

3.3.5 Y

3.3.6 Z

3.3.7 Y



(1x7=7)

Activity 3.4 Solutions

3.4.1 Linear

3.4.2 Cob web

3.4.3 Semi circular

3.4.4 Circular

3.4.5 Nucleated

3.4.6 Cross shaped



3.4.7 Dispersed

3.4.8 T-shape

(1x8=8)

Activity 3.5 Solutions

3.5.1 Decrease in the population living in rural areas (2) [CONCEPT]
(1 x 2) (2)

3.5.2 (Village shop) closing down sale (1)

KR Car Sales for sale (1)

(Work shop) services cancelled (1)

No people evident (1) [ANY ONE] (1 x 1) (1)

3.5.3 Population is decreasing (2)

Accept answer given in figures from the table (2) [ANY ONE] (1 x 2) (2)

3.5.4 Maintaining a cohesive rural community (2)

Preserve family ties or units (2)

Maintaining safety and security (2)

Balance of rural population age/sex structure (2)

Improved well-being of people (accept examples) (2)

Facilities will be developed/ not close down (accept examples) (2)

Services will be developed/ not close down (accept examples) (2)

There will be development/maintenance of infrastructure (accept examples)
(2) More employment opportunities (2)

Better salaries resulting in a better standard of living (2) [ANY ONE] (1 x 2) (2)
employment opportunities (2)

Better salaries resulting in a better standard of living (2)

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

3.5.5 Decentralise industries to rural areas (2)

Development of Infrastructure (2)

Increase subsidies for services (2)

More tax relief for potential investors (2)



- Increase incentives to start-ups that generate employment opportunities (2)
- Provision of basic services (accept examples) (2)
- Increase employment of local people in rural projects (2)
- Access to loans for farmers (2)
- Encourage small-scale commercial farming (2)
- Increased use of drought resistant crops to be able to have production (2)
- More facilities for agriculture extensions and research (2)
- Increase agricultural planning (2)
- Implement land reform programmes (2)
- Provide training to improve skills (2)
- Provide necessary tools and technology (2)
- Promote (eco-)tourism (2)
- Encourage local crafts/cultural activities (accept examples) (2)
- Provide special incentives for non-farming activities (2)
- Encourage local markets (accept examples) (2)
- Boosting exports can create jobs (2)
- Encourage women empowerment in job creation (2)
- of wastepreneurs (waste recyclers) (2)
- Encourage development of new industries (2)
- Lobby against the building of bypasses (2) [ANY FOUR] (4 x 2)

Activity 3.6 Solutions

- 3.6.1 Rural-urban migration is the movement of people from the rural area to the urban area. (2)
[CONCEPT]
- 3.6.2 Farm killings (1)
 - Poverty (1) (ANY ONE) (1)
 - Lack of job opportunities (1)
- 3.6.3
 - Piped/Potable water (1)
 - Electricity (1)
 - Sanitation (1)
 - Refuse and waste removal (1)
 - Health care (accept examples) (1)
 - Social welfare (1)
 - Housing (1)
 - Education (1)
 - Safety and security (1)



(2) **Activity 3.7 solutions**

The demand for housing cannot be met (2)
There is a shortage of suitable land (2)
Limited municipal budgets (accept examples) (2)

(4) equitable distribution and access to land (2)

- Create more/better employment opportunities (accept examples) (2)
- Promote commercial farming (2)
- Develop/upskill workers (accept examples) (2)
- Provide credit facilities/loans/subsidies to farmers (2)
- Effective land reform programmes (accept examples) (2)
- Decentralising industries/ businesses (2)
- Developing ecotourism (accept examples) (2)
- Organise festivals/recreational activities (accept examples) (2)
- Advertising/marketing of the area (2)
- Providing basic services (accept examples) (2)
- Improvement of infrastructure (accept examples) (2)
- Create incentives to encourage people to limit rural-urban migration (accept examples) (2)
- Resettlement of people in agriculturally suitable areas (2)

[ANY THREE]

(6)

(1 x 2) (2)

Stabilise relationships (1)

$$(1 \times 1) (1)$$

Legal arrangements need to be concluded (2)
(1 x 2) (2)

[ANY ONE]

(b) Shaking of hands (2)

There is no fighting (2)

Peaceful environment (2)

[ANY ONE]

(1 x 2) (2)

3.7.4 Lack of knowledge regarding the land reform process (2)

Poverty/Lack of income to attend meetings (2)

Lack of appropriate documentation (2)

Willing seller/buyer clause (2)

Legal processes are costly (2)



Constrained budgets of government (2)

Government unable to provide loans (2)

Government unable to provide equipment (2)

Training of farmers is costly (2) [ANY TWO] 2 x 2 (4)

3.7.5 The change to commercial farming would create more employment opportunities (2) Increase in food production would alleviate poverty (2)

Employment would decrease poverty (2)

There would be more reconciliation among rural communities that would bring about stability (2)

Improved services would contribute to a better quality of life (2)

Family units would not be broken due to a decrease in rural-urban migration (2)

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

URBAN SETTLEMENT MARKING GUIDELINE

ACTIVITY 3.8 : SOLUTIONS

- | | | |
|-------|----|-----------|
| 3.8.1 | Z✓ | (1) |
| 3.8.2 | Y✓ | (1) |
| 3.8.3 | Y✓ | (1) |
| 3.8.4 | Z✓ | (1) |
| 3.8.5 | Z✓ | (1) |
| 3.8.6 | Z✓ | (1) |
| 3.8.7 | Z✓ | (1) |
| | | (7x1) (7) |

ACTIVITY 3.9 : SOLUTIONS

- 3.9.1 Urbanisation is a process whereby an increasing percentage of people live in urban areas✓✓ whereas Counter urbanisation is the movement of people from urban areas back to rural areas✓✓ (2x2) (4)
- 3.9.2 As the rate of urbanisation increases the level of urbanisation increases ✓✓ (2x2) (4)
- It is a directly proportional relationship ✓✓
- 3.9.3 Urbanisation (percentage increase of people) has increased the demand for housing in urban areas ✓✓
- Lack of planning from the local government to meet demands for services✓✓
- Lack of services (electricity, water, sanitation) in informal settlements and people are not happy about this ✓✓
- Unreliable service delivery impacts on daily activities✓✓



Services are not properly maintained, therefore quality deteriorates ✓ ✓

Urbanisation increased unemployment rates which has frustrated people ✓ ✓

There is an increased demand on services such as clinics and hospitals reducing accessibility for people ✓ ✓

Traffic congestion as there are not enough roads/unmaintained roads ✓ ✓

Lack of space in schools due to high population numbers ✓ ✓

(4x2) (8)

Protest due to forced removals and demolition of informal settlements which leaves people without shelter ✓ ✓

Protests due to lack of land ownership and access to land ✓

Protests due to competition with foreigners for houses and employment ✓ ✓

People are unhappy about nepotism and corruption which is preventing them from accessing government services e.g. housing ✓ ✓ **[ANY FOUR]**

ACTIVITY 3.10 : SOLUTIONS

3.10.1 C ✓

(1)

3.10.2 D ✓

(1)

3.10.3 G ✓

(1)

3.10.4 E or I ✓

(1)

3.10.5 E ✓

(1)

3.10.6 B ✓

(1)

3.10.7 E or F ✓

(1)

3.10.8 A ✓

(1)

(8x1) (8)

ACTIVITY 3.11: SOLUTIONS

3.11.1 Isolated farmstead ✓
(1)

3.11.2 Conurbation ✓

(1)

3.11.3 Hamlet ✓

(1)

3.11.4 Metropolis ✓

(1)

3.11.5 City ✓

(1)

3.11.6 Town ✓

(1)

3.11.7 Megalopolis ✓

(1)

(7 × 1) (7)

ACTIVITY 3.12: SOLUTIONS

3.12.1 Z ✓
(1)

- 3.12.2 Y✓
(1)
3.12.3 Y✓
(1)
3.12.4 Y✓
(1)
3.12.5 Y✓
(1)



(5 × 1) (5)

ACTIVITY 3.13: SOLUTIONS

- 3.13.1 Ranking of urban settlement from smallest to largest✓✓ (1 × 2) (2)
3.13.2 The land is above 300 m in height✓
Steep areas✓
Mountainous area✓ [ANY ONE] (1 × 1) (1)
3.13.3 A✓ (1 × 1) (1)
3.13.4 A is linked to the main road, which increases its range✓✓
Inhabitants of the Town prefer visiting/shopping at A rather than B, due to accessibility ✓✓
[ANY ONE] (1 × 2) (2)
3.13.5 Refer to the shopping centre.
a) Regional shopping centre✓ (1 × 1) (1)
b) Located outside the built-up areas, where land values are lower✓✓
Ample space for future expansion✓✓
Next to the highway for accessibility✓✓
Roads link the shopping centre to all other settlements✓✓
[ANY TWO] (2 × 2) (4)
c) More people will pass through CITY A to reach the shopping centre✓✓
People may relocate to CITY A to be nearer to the shopping centre✓✓
The profits of the businesses of CITY A will increase due to the influx of people passing through✓✓
[ANY TWO] (2 × 2) (4)

Activity 3.14 Solutions

- 3.14.1 CBD (Central Business District) (1) (1 × 1) (1)



- 3.14.2 Traffic delays/traffic congestion (2)
Time wasted/ not on time (2)
Loss of jobs/loss of income (2)
Increase in stress levels/ road rage (2)
High fuel costs/ increase cost of transport/ increase cost of parking (2)
Lack of parking/commuters walk to work (2)
Increase in accidents (2)
More fines due to not obeying the traffic rules (2)
High vehicle maintenance costs (2)
[ANY ONE] (1 x 2) (2)
- 3.14.3 CBD/**A** is expanding into the transition zone in some areas/invasion and succession (2)
Irregular expansion of the residential zone into the transition zone (2)
CBD/**A** is irregular in shape (2)
The residential area is irregular in shape (2)
[ANY TWO] (2 x 2) (4)
- 3.14.4 Buildings abandoned (2)
No maintenance/landlords/tenants neglect buildings (2)
Low rentals result in limited capital to maintain buildings (2)
Buildings are vandalized/graffiti on walls (2)
Homeless people move into abandoned buildings (2)
Low owner occupancy (2)
Illegal occupation of buildings (2)
Changing functions of buildings (2)
Lack of service delivery by municipalities (2)
Social ills commonly occur (2)
Overcrowding in rental units (2)
[ANY TWO] (2 x 2) (4)
- 3.14.5 Open space (2)
Presence of greenbelt/ aesthetic appeal (2)
Peace and tranquility (2)
Accessibility to **A** /existing infrastructure (2)
Less pollution (2)
Cheaper land (2)
More security/less crime (2)
Less traffic congestion (2)
[ANY TWO] (2 x 2) (4)

Activity3: 15

- 3.15.1 Low income (1) (1 x 1) (1)
- 3.15.2 Space between houses is limited/high density (2)
Small plots (stands) (2)
Size of the houses are small/ Low cost housing (accept examples) (2)
Similar style/design of houses (2)
Limited infrastructure (accept examples) (2)
Houses appear in rows (2)
Lack of vegetation (accept examples) (2)



Little or no recreational facilities (2)

[ANY ONE]

(1 x 2) (2)

- 3.15.3 Employment opportunities (2) Saves travel time (2)
Easy access to the place of employment (2) Lower traveling costs (2)
Land is affordable/cheaper (2)
Unskilled/semi-skilled labor (2) **[ANY TWO]**

(2 x 2) (4)

- 3.15.4 Air pollution (accept examples) (2) Noise pollution (accept examples) (2) Water pollution (accept examples) (2)
Health related problems (accept examples) (2)
[ANY TWO]

(2 x 2) (4)

- 3.15.5 Install filters on chimneys to reduce air pollution (2)
Increase the height of chimneys to disperse air pollution (2)

Implement legislation to control the amount of pollution associated with the industries (accept examples) (2)

Conduct research to determine the effect of their activities on the people or the environment (2)

Regular maintenance of infrastructure related to the industries (2)

Employ environmental officers to monitor pollution levels (2)

Introduce noise reduction methods to limit noise pollution (2)

Develop greenbelts / buffer zones around industries (accept examples) to control air pollution (2)

Encourage the use of green energy to reduce pollution levels (2)

Compensate the community for health care as a result of air pollution (2)

[ANY TWO]

(2 x 2) (4)

Activity 3.16

- 3.16.1 Tall buildings (1)
High density of buildings (1)
[ANY ONE]

(2 x 1) (2)

- 3.16.2 CBD (1)

(1 x 1) (1)

- 3.16.3 Increases (2)

(1 x 2) (2)

- 3.16.4 It is the future expansion of the CBD (invasion and succession) (2)
Homeowners can still get high prices for dilapidated buildings (2)
Landlords in the transition zone are hesitant to renovate (2) **[ANY TWO]**

(2 x 2) (4)

- 3.16.5 Greater accessibility (2)
They are located in high population density areas (markets) (2) Along main roads with a constant flow of traffic (2)
Lower land values (2) Lower rental costs (2) Modern/new buildings (2)
More parking space (2) Less pollution (2)
Less crime (2)
[ANY THREE] (3 x 2) (6)

Activity 3.17

- 3.17.1 5 million (1) (1 x 1) (1)
- 3.17.2 Access to electricity (1)
Access to flush toilets (1)
Low occupancy/ one person only (1)
[ANY TWO] (2 x 1) (2)
- 3.17.3 Cheaper to live in informal settlements/ Lower rental cost (2)
Less restrictions in the informal settlements (2)
Access to illegal connections (2)
Easier to get on low cost housing lists (2)
Access to more informal economic activities (2)
Potential to extend your shack (2)
[ANY ONE- MAY ANSWER FROM THE PERSPECTIVE OF THE BACKYARD SHACK] (1 x 2) (2)
- 3.17.4 Poor quality building materials provide limited protection (accept examples (1 x 2) (2)
- 3.17.5
- Limited access to basic services (accept examples) (2) due to greater demand (2)
 - Increase in health problems (accept examples) (2) due to high levels of pollution (2)/due to overcrowding (2)
 - Limited access to education/health services (2) due to a large concentration of people (2)
 - Increase in crime (2) due to increased levels of unemployment (2)
 - Decrease in aesthetic appeal (2) due to lack of planning/conditions of informal settlements (2)
 - Increased food insecurity (2) due lack of income (2)
 - Overcrowding (2) due to lack of space for settlement/planning (2)
 - Increase in poverty (2) due to high rate of unemployment (2)
 - Children not in school (2) due to lack of schools/poor parenting (2)

- Drug/alcohol abuse (2) due to despair or gang's influence (2)
- Violence on people (2) due to areas not being lit up at night (2)
- Social ills (2) due to lack of income or jobs (2)

(2 + 2) (4)

Activity 3:18 Solutions

- 3.18.1 A settlement that has limited planning and infrastructure (2)
No formal ownership of the land (2)
Land that is occupied illegally (2)
An informal structure with different building materials (2)
[ANY ONE] (1 x 2) (2)
- 3.18.2 "Rapid urbanisation" (1)
"government failure to deliver adequate housing"(1)
[ANY ONE] (1 x 1) (1)
- 3.18.3 Locate near water sources e.g. rivers (2)
In low lying areas (2)
Lack basic amenities and infrastructure (2)
Poor drainage/storm water systems (2)
[ANY ONE] (1 x 2) (2)
- 3.18.4 Poor accessibility to informal settlements (2)
Takes longer to reach the informal settlement in times of emergency (2)
[ANY ONE] (1 x 2) (2)
- 3.18.5 Informal settlements should be relocated to higher lying areas (2)
Adequate services should be provided to informal settlements (2)
An efficient drainage system should be installed (2)
Provide stronger building material (2)
Provide low cost housing (2)
Provide better infrastructure (2)
Access to better emergency services (2)
[ANY FOUR] (4 x 2) (8)

Activity 3:19 Solutions

- 3.19 3.19.1 Increase (1) (1 x 1) (1)
- 3.19.2 More people can afford/use vehicles (accept examples) (2)
More forms of public transport evident (accept examples) (2)
Distance between place of work and residence (2)
Increase in the number of people (2)
[ANY TWO] (2 x 2) (4)
- 3.19.3 Takes longer to reach destination (2)
Higher occurrence of road rage/stress/anxiety (2)
Increased fuel costs (2)
Increased health issues (accept examples) (2)
Late for meetings/work (2)

At risk of losing employment (2)
Possibility of accidents (2)
Smash and grab/ car hijackings (2)
[ANY TWO]

(2 x 2) (4)

3.19.4



Encourage use of public transport (2)
Improved/safer public transport systems (2)
Efficient/reliable public transport systems (2)
More efficient rail services (2)
Increase the number of lanes (2)
Specialised lanes (accept examples) (2)
Encourage the use of scooters/bicycles (2)
Motorised barriers (to increase number of lanes) (2)
Lift clubs/car-pooling (2)
Increase parking tariffs in the CBD (2)
Park and ride facilities (2)
Use of tollgates (2)
Synchronised traffic lights (2)
Decentralise commercial functions (2)
Staggered starting times (2)
Ring roads and by-passes (2)
By-laws to reduce number of private vehicles on the road (2)
One way streets (2)
Proper road maintenance (2)
Encourage people to work from home (2)
Broadcast traffic accidents and congested routes (2)
Enforce existing road traffic laws (2)
CCTV to monitor road conditions (2)
Introduction of drones for delivery services (2)
[ANY THREE]

(3 x 2) (6)



Economic Geography

Marking guidelines

Activity 4.1 Solutions



4.1.1	Tertiary	1x1 (1)
4.1.2	Agriculture	1x1 (1)
4.1.3	Primary	1x1 (1)
4.1.4	7,9%	1x1 (1)
4.1.5	Secondary	1x1 (1)
4.1.6	Manufacturing	1x1 (1)
4.1.7	Secondary (utilities)	1x1 (1)
4.1.8	Tertiary	1x1 (1)

Activity 4.2 Solutions

4.2.1	A	1x1 (1)
4.2.2	A	1x1 (1)
4.2.3	B	1x1 (1)
4.2.4	B	1x1 (1)
4.2.5	B	1x1 (1)
4.2.6	B	1x1 (1)

Activity 4.3 Solutions

4.3.1	2014	1x1 (1)
4.3.2	South Africa's interior was experiencing drought over most of the summer rainfall regions. This has influenced the size of the area planted and reduced the crop yield. (ANY ONE)	1x2 (2)
4.3.3	Small scale farmers produce food on a smaller scale but are able to contribute to the total maize production Ensure food security to the deep rural population as they produce enough to sustain a family unit	2x2 (4)
4.3.4	Different climatic regions provide opportunity for various types of crops that can be grown in SA There is sufficient water for the crops in the areas of growth e.g. for wheat, maize and fruit Technology and good research to create cultivars that prosper in the climatic conditions in South Africa.	3x2 (6)



Activity 4.4 Solutions

- | | | |
|-------|--|---------|
| 4.4.1 | Lack money to buy food and are unable to produce their own food
inability to secure employment or to generate income
characterised by few income- earners and many dependents
[ANY TWO] | 2x1 (2) |
| 4.4.2 | To prevent hunger and famine
Maintain good health of people
It will prevent social uprisings
Reduces the crime rate | 1x2 (2) |
| 4.4.3 | To maintain a productive population
They would not have surplus money/budget to buy food (accept examples) | 1x2 (2) |
| 4.4.4 | They produce their own food (practise subsistence farming) which ensures the availability of food
They live communally and can share food
[ANY ONE] | 1x2 (2) |
| 4.4.5 | More employment/skills training for vulnerable households
Accelerate land reform process
Encourage urban farming
Zero rate VAT on basic foods
Subsidies for food production
Encouraging social and private partnerships
Encourage small-scale farming
Genetically modified staple foods
Community soup kitchens/school feeding schemes
Distribution of food parcels
[ANY FOUR] | 4x2 (8) |

Activity 4. 5 Solutions

- | | | |
|-------|--|---------|
| 4.5.1 | Primary | 1x1 (1) |
| 4.5.2 | 2020 | 1x1 (1) |
| 4.5.3 | Car industry/Motor manufacturing/Vehicle industry | 1x1 (1) |
| 4.5.4 | Zimbabwe
Russia | 2x1 (2) |
| 4.5.5 | Positively effect on the economy (economic growth)
More revenue from exports
Employment opportunities
Improvement and construction of infrastructure
Attraction of foreign investments
Development of link industries
[ANY TWO] | 2x2 (4) |
| 4.5.6 | Labour issues: Labour disputes and strikes are common in the platinum mining industry in South Africa.
Safety concerns: Accidents, injuries, and fatalities can occur due to equipment failures, rockfalls, and hazardous working conditions. | 3x2 (6) |

Environmental impact: Platinum mining can have significant environmental consequences, including habitat destruction, soil erosion, and water pollution.

Community relations: Mining operations can sometimes cause conflicts with local communities due to land disputes, relocation of communities, and perceived or actual environmental and social impacts.

Infrastructure limitations: Platinum mining often takes place in remote areas with limited infrastructure.

Water scarcity: Water scarcity is a significant concern in many mining regions of South Africa, including platinum mining areas.

Energy supply: Reliable and affordable energy supply is crucial for mining operations.

Regulatory challenges: Compliance with complex regulations and permitting processes can be challenging for mining companies.

Infrastructure theft and illegal mining: The theft of mining equipment, infrastructure, and precious metals is a persistent issue in the South African mining industry.

Technological challenges: Platinum mining requires advanced technologies and equipment to extract and process the ores efficiently.

[ANY THREE]

Activity 4.6 Solutions

4.6.1	Heavy	1x1 (1)
4.6.2	Market	1x1 (1)
4.6.3	Footloose	1x1 (1)
4.6.4	Light	1x1 (1)
4.6.5	Raw material	1x1 (1)
4.6.6	Bridge	1x1 (1)
4.6.7	Ubiquitous	1x1 (1)
4.6.8	Heavy	1x1 (1)

Activity 4.7 Solutions

4.7.1	Port Elizabeth-Uitenage industrial region	1x1 (1)
4.7.2	Eastern Cape	1x1 (1)
4.7.3	Indian Ocean	1x1 (1)
4.7.4	Wild Coast SDI	1x1 (1)
4.7.5	Market	2x1 (2)
	Import and export of goods made easy by harbour	
	Good links with the rest of South Africa	
	Availability of raw material (accept examples)	
	Flat land	
	Large labour force due to large population	

[ANY TWO]



- 4.7.6 Motor vehicle assemble parts (VW, Mercedes Benz, Delta) 2x1 (2)
Supporting industries (car parts, tyres)
Textile- wool
Leather- shoes
Fruit canning
Salt
[ANY TWO]
- 4.7.7 Investment would provide more employment 2x2 (4)
Better salaries will increase buying power
Multiplier effect/link industries develop the economy
Broaden the skills base
Infrastructural changes stimulate industrial growth
Stimulates the growth of the tertiary economic sector e.g. tourism
Reduces the migration of skilled labour out of the region
It provides work opportunities to the local people therefore contribute to the GDP of the province/country
Availability of raw materials for the textile industry
[ANY TWO]
- 4.7.8 It has forced industries to embrace fourth industrial revolution 2x2 (4)
technology to improve efficiency and quality of production
Upskilling of workers to adapt to new automation/technology
Specialist/highly skilled workers have had to be brought in from other countries to improve the quality of production/share expertise
Infrastructure directly involved in the processing and exporting of goods had to be upgraded
Industries to implement multiple shifts (night and day) to improve production to meet the demand
Exporting of processed goods reduces imports
[ANY TWO]

Activity 4.8 Solutions

- 4.8.1 Attract foreign investment (FDI) 1x2 (2)
Attract advanced foreign production and technology methods to gain experience in global manufacturing and production network
Develop linkages between domestic and zone-based industries
Provide world – class industrial infrastructure
Create employment
[ANY ONE]
- 4.8.2 14,240 jobs 1x1 (1)
- 4.8.3 Production stopped 2x2 (4)
There was no income
Industries had to close
No income from exports
Loss of employment
Loss of investments
[ANY TWO]
- 4.8.4 Abundance supply of labour 2x2 (4)



The site is directly connected to South Africa's national rail and road networks and sea-based east-west trade routes

It is very large site

It lies adjacent to the largest port in the southern hemisphere, the deep-water port and transshipment hub of Ngqura

[ANY TWO]

- | | | |
|-------|---|---------|
| 4.8.5 | More employment opportunities
They will acquire new skills
Standard of living is improved. (Able to afford housing/housing/medicine/schooling)
Improvement of infrastructure
Opportunities to work abroad | 2x2 (4) |
|-------|---|---------|

Activity 4.9 Solutions

- | | | |
|-------|---|---------|
| 4.9.1 | Spatial Development Initiative | 1x1 (1) |
| 4.9.2 | The natural beautiful beaches
Impressive gorges and indigenous forests | 2x1 (2) |
| 4.9.3 | Poor infrastructure/ poor roads/area does not industries | 2x2 (4) |
| 4.9.4 | The road will make the area accessible to to investors and then attract more economic growth. | 1x2 (2) |
| 4.9.5 | More employment opportunities
Standard of living is improved. (Able to afford housing/housing/medicine/schooling)
Improvement of infrastructure
Attract more investors | 3x2 (6) |

Activity 10 Solutions

- | | | |
|--------|---|---------|
| 4.10.1 | People not employed in the formal sector, not registered, do not pay tax | 1x2 (2) |
| 4.10.2 | Unemployment
Need to increase household income.
Lack of skills
No education
Industries/mines close (ANY ONE) | 1x1 (1) |
| 4.10.3 | 34% | 1x1 (1) |
| 4.10.4 | Prices of the goods are low/cheap.
They do not sell specialised goods.
Income is unreliable.
No support from banks
They serve a limited number of customers. (ANY ONE) | 1x2 (2) |
| 4.10.5 | Harassed by local authorities.
No access to proper trading facilities
Exposed to the harsh weather.
They are victims of crime.
There is too much competition amongst traders. | 4x2 (8) |



Goods they sell perish.
By-laws governing street trade can be confusing and licenses hard to get.
They sometimes evicted from their places of trade.

Activity 11 Solutions



- | | | |
|--------|---|---------|
| 4.11.1 | Shadow economy | 1x1 (1) |
| 4.11.2 | She cannot afford it | 1x1 (1) |
| 4.11.3 | 'Regular raids'
'Goods are seized'
'Fines are issued'
[ANY ONE] | 1x1 (1) |
| 4.11.4 | They do not pay taxes to SARS
Unregistered businesses
[ANY ONE] | 1x2 (2) |
| 4.11.5 | It creates jobs
Reduces dependence on the state (Accept examples)
Goods are cheaper
Services are affordable (Accept examples)
They buy goods/ merchandise from formal businesses
Creation of new skills (Accept examples)
They pay vat
Reduces crime
[ANY TWO] | 2x2 (4) |
| 4.11.6 | They could reduce taxes
Affordable/ free registration fees
Provide access to capital/ loans
Skills training (Accept examples)
Allow informal business to operate from home
Effective policing/ no harassment
Offer affordable rental on premises
Employment benefit to workers in the informal sector
Partnership between formal and informal sectors
Provision of facilities (Accept example)
Provide services (Accept examples) | 3x2(6) |

