



**education**

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Department:  
Education  
**REPUBLIC OF SOUTH AFRICA**

**SENIOR CERTIFICATE EXAMINATION – 2008**

**GEOGRAPHY P1**

**HIGHER GRADE**

**MAY/JUNE 2008**

**MEMORANDUM**

**MARKS: 300**

**This memorandum consists of 22 pages.**

**QUESTION 1**

- 1.1.1 True (2) 1x2 = (2)
- 1.1.2 False (2) 1x2 = (2)
- 1.1.3 True (2) 1x2 = (2)
- 1.1.4 False (2) 1x2 = (2)
- 1.1.5 True (2) 1x2 = (2)

1.2.1 Fronts are visible (2) 1x2 = (2)

1.2.2 a) Winter (2) 1x2 = (2)

b) Position of mid-latitude cyclone (2)  
 Low temperatures (2)  
 Cloud cover over southwestern Cape (2)  
 [Any ONE] 1x2 = (2)

1.2.3. a) Cloud cover = overcast / 8/8 / 100% (2)  
 Air temperature = 15 °C (2)  
 Dewpoint temperature = 11°C (2)  
 Wind speed = 15 knots (2)  
 Wind direction = Northwest / Northwesterly (2)  
 Precipitation / Weather = Rain (2)  
 Atmospheric pressure = 996 hPa (2)  
 [Any THREE] 3x2 = (6)

b) Cloud cover : Cold air undercuts warm air (2)  
 Warm air rises and condenses (2)  
Air temperature : Approaching cold front cools temperatures down (2)  
Dewpoint temperature : Cold air does not have to cool down much  
 for condensation to occur (2)  
Wind speed : Weak pressure gradient (2)  
Wind direction : Clockwise rotation (2)  
Precipitation / weather : Rising air cools down and condenses (2)  
Atmospheric pressure : Rising air ahead of cold front decreases  
 pressure (2)  
 [Any THREE – must relate to answer in Question 1.2.3(a)] 3x2 = (6)

1.2.4 Mature stage / Warm sector stage (2) 1x2 = (2)

1.2.5 a)

	<b>X</b>	<b>Y</b>
cloud type:	cumulonimbus	nimbostratus (2)
precipitation:	Showers	light rain (2)

2x2 = (4)

b) X - Steep gradient of cold fronts undercuts the warm air and force  
 it to rise very high (2)  
 Y - Warm air does not rise very high over gradual gradient of warm  
 front (2) 2x2 = (4)

- 1.3.1 P – South Atlantic / St Helena (2)  
Q – South Indian / Mauritius (2) 2x2 = (4)
- 1.3.2 R – southwesterly (2)  
S – northeasterly (2) 2x2 = (4)
- 1.3.3 Moisture front / trough line (2) 1x2 = (2)
- 1.3.4 Cold air mass meets warm air mass (2)  
Forces warm air to rise very high (2)  
Large scale condensation takes place (2)  
Cumulonimbus clouds develop (2)  
[Any TWO] 2x2 = (4)
- 1.4.1 Graph showing the discharge of a river per hour at a specific point  
along the course of a river (2)  
[Concept] 1x2 = (2)
- 1.4.2. a) The highest level that water will reach in a river after rain (2)  
[Concept] 1x2 = (2)
- b) Difference in time between rainfall peak and flood peak (2)  
[Concept] 1x2 = (2)
- 1.4.3 a) 6 hours - 6½ hours (2) 1x2 = (2)
- b) First water from precipitation will infiltrate and not form run-off (2)  
After precipitation sheet flow will form first and not stream flow (2) 2x2 = (4)
- 1.4.4 a) It will be higher (2) 1x2 = (2)
- b) Less infiltration (2)  
More sheet flow (2)  
More water will reach the stream (2)  
Level of water will rise in stream (2)  
[Any TWO] 2x2 = (4)
- 1.4.5 Increase height of levees (2)  
Planting more vegetation (2)  
Construction of small catchment dams in upper reaches to release  
water at intervals into main stream (2)  
Construction of large dams in lower reaches (2)  
Leave certain areas near the river banks purposely undeveloped (2)  
Line rivers with concrete to reduce friction (2)  
Cut out meanders to increase gradient and increase velocity (2)  
[Any TWO] 2x2 = (4)

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- 1.5.1 K – Tor (2)  
L – Dome (2) 2x2 = (4)
- 1.5.2 L (2) 1x2 = (2)
- 1.5.3 Chemical weathering of rock along the joints (below earth's surface) (2)  
(When the rock is exposed) weathered material is eroded (2)  
Larger core stones remain behind (2)  
[Any TWO] 2x2 = (4)
- 1.6.1 Active – Atmosphere (2)  
Vegetation and animals (2)  
Man (2)  
[Any ONE]  
Passive – Parent rock (2)  
Slopes / relief (2)  
[Any ONE] 2x2 = (4)
- 1.6.2 Atmosphere  
Rain provides necessary water for chemical and biological reactions to take place (2)  
Dissolved minerals and nutrients trickle down through the soil – leaching (2)  
Higher temperatures promote chemical reactions such as decomposition and weathering (2)  
Wind increases the evaporation of water from the upper horizons of the soil and removes surface material in dry regions where there is little plant cover (2)  
Matter that is carried by wind may accumulate and thereby provide parent material for soil (2)  
[Any TWO]
- Vegetation and animals  
Dead plants and animals are broken down by micro-organisms such as bacteria and fungi into a fine organic material called humus (2)  
Humus helps to break down the minerals in the parent material (2)  
Earthworms provide channels in the soil through which air and water can move (2)  
[Any TWO]
- Man  
Activities of man such as crop farming - adding fertilizers and organic matter play a role in the formation of the soil (2)  
Trampling of soil by domesticated animals helps with the formation of the soil (2)
- Parent rock  
Determines the mineral composition, texture and the rate of weathering of the soil that develops from it (2)  
Depending on mineral composition of parent rock, the composition of elements will vary (2)  
Parent rock will determine the colour of soil (2)  
[Any TWO]

Slopes

Soil on the steep slope is shallow because weathering and erosion carries it down-slope (2)

Gentle slopes usually have deep well drained soils (2)

[Describe role of ONE active and ONE passive – must relate to answer in Question 1.6.1 – 2x2 for each element]

4x2 = (8)

1.6.3 Support plant growth (2)

Cultivation and food production (2)

Sustainability of the soil (2)

Fertile soil is unlikely to be eroded (2)

Maintaining balance in ecosystem (2)

[Any TWO]

2x2 = (4)

**[100]**

**QUESTION 2**

- 2.1.1 True (2)
- 2.1.2 False (2)
- 2.1.3 False (2)
- 2.1.4 False (2)
- 2.1.5 True (2) 5x2=(10)
- 2.2.1 Along west coast of Namibia (2) 1x2 = (2)
- 2.2.2 Rotation of air is clockwise (2)  
Air ascends / rises (2)  
At the surface there is convergence and divergence high up (2) 3x2 = (6)
- 2.2.3 Develops over cold ocean (2)  
Cold air heavy and dense (2)  
Rising of air is limited (2)  
Pressure relatively high (2)  
[Any TWO] 2x2 = (4)
- 2.2.4 a) Pressure drops (2) 1x2 = (2)
- b) Move over warm ocean (2)  
Warm air less dense and rises (2)  
[Any ONE] 1x2 = (2)
- 2.2.5 Ahead – off-shore winds / northeasterlies (2)  
berg wind conditions / dry conditions (2)  
little cloud cover (2)  
higher temperatures (2)  
[Any TWO]
- Behind – on-shore winds / southwesterlies (2)  
fog develops (2)  
possibility of rain (2)  
drop in temperatures (2)  
[Any TWO] 4x2 = (8)
- 2.3.1 a) F (2) 1x2 = (2)
- b) F is facing northwards / the sun (2)  
F will receive more insolation (2)  
Energy concentrated on small surface area (2)  
G is in the shadow (2)  
[Any ONE] 1x2 = (2)
- 2.3.2 a) At slope F groundwater content will be low (2) 1x2 = (2)
- b) F is the warm slope (2)  
At F there is high rate of evaporation (2) 2x2 = (4)

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- 2.3.3 Upper slopes cool down due to terrestrial radiation (2)  
 Cold air drains down the valley flanks (2)  
 Assembles on the valley floor (2)  
 Due to cooling dew point temperature is reached below freezing point (2)  
 Condensation takes place (2)  
 Intense cooling result in the formation of frost and frost particles (2)  
 [Any TWO] 2x2 = (4)
- 2.4.1 a) Entire area drained by the river and its tributaries (2)  
 [Concept] 1x2 = (2)  
 b) The main stream and its tributaries collectively (2)  
 [Concept] 1x2 = (2)
- 2.4.2 a) 3<sup>rd</sup> order (2) 1x2 = (2)  
 b) The lower the stream order (2) the more streams there are (2)  
 OR  
 The higher the stream order (2) the fewer stream segments  
 there are (2) 2x2 = (4)  
 c) Decrease (2) 1x2 = (2)  
 d) During drought there will be no water added to the stream  
 channel (2)  
 First order streams will dry out first (2)  
 No new tributaries will be formed (2)  
 [Any ONE] 1x2 = (2)
- 2.4.3 a) Steep slope (2)  
 Little vegetation / little plant cover (2)  
 Impermeable rock (2)  
 [Any TWO] 2x2 = (4)  
 b) Steep slope will promote quick run-off (2)  
     run-off increases (2)  
     little infiltration (2)  
     Little vegetation nothing to slow down flow of water (2)  
     will result in high run-off (2)  
     little infiltration (2)  
     Impemeable rock water cannot infiltrate (2)  
     promote quick run-off (2)  
 [Any TWO for each of the factors – must relate to Question 2.4.3(a)]4x2 = (8)

- 2.4.4 a) Humid regions (2) 1x2 = (2)
- b) Flow water rounds the landscape (2) 1x2 = (2)
- c) Fertile land (2)  
Water is available (2)  
Flat land (2)  
[Any TWO] 2x2 = (4)
- 2.5.1 Sun / solar (2) 1x2 = (2)
- 2.5.2 Plankton (2) 1x2 = (2)
- 2.5.3 Carnivores / fish (2) 1x2 = (2)
- 2.5.4 Dead plants and animals sink to river bed (2)  
Many decomposers in mud on river bed (2)  
As dead plants and animals decompose they provide nutrients (2)  
Eroded material from the valley provides nutrients (2)  
[Any TWO] 2x2 = (4)
- 2.5.5 Eroded sediments / soil particles will make water muddy (2)  
Less sunlight will penetrate the water (2)  
Photosynthesis by plankton reduced (2)  
Less food available for consumers (2)  
Consumers reduced changing the food web (2)  
[Any TWO] 2x2 = (4)
- 2.5.6 Aesthetic value (2)  
Conservation (2)  
Ethical reasons (2)  
Scientific value (2)  
Preserving genetic diversity (2)  
Stability in the environment (2)  
Recreation (2)  
Economic value (2)  
Preserving the quality of life (2)  
Protection natural habitats (2)  
[Any TWO] 2x2 = (4)

**[100]**

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**QUESTION 3**

- 3.1 a) primary (2)  
b) commercial (2)  
c) push (2)  
d) rural-urban fringe (2)  
e) informal (2) 5x2=(10)
- 3.2.1 Farming takes place (2)  
Rondavels shown (2)  
[Any ONE] 1x2 = (2)
- 3.2.2 a) Subsistence: farmers only provides for his own needs and the needs of his family (2)  
[Concept]  
Commercial: farmers farms to sell products and make a profit (2)  
[Concept] 2x2 = (4)
- b) M – subsistence (2)  
N – commercial (2) 2x2 = (4)
- c) M – cattle roam freely / not in camps (2)  
family shares farm land (2)  
small section of land farmed (2)  
no modern farming equipment / techniques (2)  
dongas are forming (2)  
[Any ONE]  
N – modern farming methods e.g. irrigation and contour ploughing (2)  
large section of land cultivated (2)  
wind breaks to prevent soil erosion (2)  
[Any ONE] 2x2 = (4)
- 3.2.3 a) M (2) 1x2 = (2)
- b) No profit made (2)  
Low standard of living (2)  
No employment (2)  
[Any TWO] 2x2 = (4)
- 3.2.4 a) Isolation (2)  
Boredom (2)  
No entertainment / recreation (2)  
No other forms of transport (2)  
[Any ONE] 1x2 = (2)

- b) Droughts (2)  
 Flooding (2)  
 Soil erosion (2)  
 Mechanisation (2)  
 Unemployment (2)  
 Low wages (2)  
 Low standard of living (2)  
 Lack of services e.g. medical, education, infrastructure (2)  
 Rising costs of farming (2)  
 Low output per farming unit / uneconomical farming units (2)  
 Farm killings (2)  
 [Any TWO – Accept other] 2x2 = (4)
- 3.2.5 Ageing population (2)  
 Population numbers decrease / no more population growth (2)  
 Resources not used (2)  
 Farm houses abandoned (2)  
 Decrease in production (2)  
 Services decline (2)  
 Economic growth decreases (2)  
 Security becomes a problem (2)  
 [Any THREE – Accept other] 3x2 = (6)
- 3.2.6 Establish game parks (2)  
 Decentralisation of economic activities (2)  
 Create employment (2)  
 Raise standard of living (2)  
 Provide quality services (2)  
 Attract pensioners to live in rural settlements (2)  
 Attract commuters (2)  
 Assist farmers during time of natural disasters (2)  
 Improve security (2)  
 [Any THREE – Accept other] 3x2 = (6)
- 3.3.1 a) An increase in number of people living in urban areas (2)  
 [Concept] 1x2 = (2)  
 b) The actual increase in the size of the urban area (2)  
 [Concept] 1x2 = (2)
- 3.3.2 P – CBD (2)  
 Q – Residential (2)  
 R – Recreation / parks / green belt (2) 3x2 = (6)

- 3.3.3 a) Commercial / business (2) 1x2 = (2)
- b) High (2) 1x2 = (2)
- c) Major routes converge here (2)  
Most accessible place in the city (2)  
Competition for land (2)  
Land value is high (2)  
Build upwards and close to one another to use land effectively (2)  
[Any TWO] 2x2 = (4)
- d) Air pollution (2)  
Noise pollution (2)  
Overcrowding (2)  
Traffic congestion (2)  
High accident rate (2)  
Crime (2)  
Lack of open spaces (2)  
High rentals (2)  
[Any TWO] 2x2 = (4)
- e) Air pollution: filters in exhausts (2)  
reduce cars in CBD (2)  
Noise pollution: silencers in motor vehicles (2)  
reduce cars in CBD (2)  
Overcrowding: decentralisation of functions (2)  
Traffic congestion: improve public transport (2)  
develop special shoulder lanes for peak traffic (2)  
park-and-ride (2)  
work flexi-time (2)  
lift clubs (2)  
High accident rate: improve public transport (2)  
park-and-ride (2)  
lift clubs (2)  
traffic controllers (2)  
Crime: increase policing (2)  
closed circuit cameras (CCTV) (2)  
Lack of open spaces: close roads and plant trees (2)  
demolish buildings to create space (2)  
High rentals: more competitive rates (2)  
[Any TWO – must refer to the problem in Question 3.3.3(d)] 2x2 = (4)

- 3.3.4 a) Heavy (2) 1x2 = (2)
- b) Large buildings (2)  
Availability of space / open land (2)  
Large scale air pollution (2)  
Outside the city (2)  
[Any TWO] 2x2 =(4)
- c) Noise pollution (2)  
Air pollution (2)  
Bad odours / smells (2)  
Large tracts of cheap land on outskirts (2)  
Dangerous activities away from city (2)  
Close to bulk transport (2)  
Close to water sources (2)  
[Any THREE] 3x2 = (6)
- d) Vegetation absorbs carbon dioxide during photosynthesis (2)  
Carbon dioxide released by industries absorbed by plants (2) 2x2 = (4)
- e) Taller stacks / chimneys to release pollution above inversion layer (2)  
Filters in chimneys / stacks to catch pollutants (2)  
Reduce industrial activities at night time (2)  
Legislation limiting amount of pollutants being released (2)  
Fines for releasing too much pollutants (2)  
Plant more vegetation (2)  
[Any THREE] 3x2 = (6)
- f) Aesthetic appeal / beautification (2)  
Areas to relax (2)  
Areas for recreational activities (2)  
Protection of natural environment (2)  
Noise reduction (2)  
[Any TWO] 2x2 = (4)

**[100]**

**QUESTION 4**

- 4.1 a) after (2)  
b) social (2)  
c) profile (2)  
d) side (2)  
e) centre (2) 5x2=(10)
- 4.2.1 Exact piece of land occupied by a settlement (2)  
[Concept] 1x2 = (2)
- 4.2.2 a) W – dispersed / isolated (2)  
V – nucleated / clustered (2) 2x2 = (4)
- b) W – houses far apart (2)  
V – houses close to one another (2) 2x2 = (4)
- c) Cross-road (2) 1x2 = (2)
- d) Intersection of roads (2) 1x2 = (2)
- 4.2.3 a) Easy to visit (2)  
Safety (2)  
Sharing of ideas (2)  
[Any TWO] 2x2 = (4)
- b) Live at place of work (2)  
Minimise travel distance and costs (2)  
Mechanisation is possible (2)  
Can introduce soil conservation methods (2)  
Supervision is easy (2)  
Can use own initiative (2)  
[Any THREE] 3x2 = (6)
- 4.2.4 Employment opportunities (2)  
Higher income (2)  
Higher standard of living (2)  
Better services provided (2)  
Entertainment (2)  
[Any THREE] 3x2 = (6)
- 4.2.5 a) Adult (2)  
Economically active population (2)  
[Any ONE] 1x2 = (2)
- b) Elderly and young (2) 1x2 = (2)

- c) Population ages (2)  
Fields no longer cultivated properly (2)  
Economic development degenerates (2)  
Services decline / close down (2)  
Ghost towns develop (2)  
[Any TWO] 2x2 = (4)
- d) Establish game parks (2)  
Decentralisation of economic activities (2)  
Create employment (2)  
Raise standard of living (2)  
Provide quality services (2)  
Attract pensioners to live in rural settlements (2)  
Attract commuters (2)  
Assist farmers during time of natural disasters (2)  
Improve security (2)  
[Any TWO – Accept other] 2x2 = (4)
- 4.3.1 a) Percentage of total population living in urban areas at a specific time (2)  
[Concept] 1x2 = (2)
- b) Measures the amount by which the percentage of people living in cities increase from year to year (2)  
[Concept] 1x2 = (2)
- 4.3.2 a) Developed (2) 1x2 = (2)
- b) Most people are already living in cities (2)  
Few people will still enter the cities (2) 2x2 = (4)
- 4.3.3 a) A settlement that develops without any planned infrastructure (2)  
[Concept] 1x2 = (2)
- b) People migrate from rural areas to urban areas and cannot find employment (2)  
Cannot afford formal / better housing (2)  
Uncontrolled influx makes it difficult for local government to plan (2)  
[Any TWO] 2x2 = (4)
- c) Open space available (2)  
Close to industry for work (2)  
Close to river for water (2)  
[Any TWO] 2x2 = (4)

- d) No running water in homes (2)  
No sanitation in homes (2)  
Water used for washing (2)  
Raw sewage dumped in river (2)  
Trees cut down for building materials (2)  
Trees cut down for domestic fires (2)  
[Any TWO – must refer to river and woodlands] 2x2 = (4)
- e) Electrification (2)  
Build better houses (2)  
Provide running water (2)  
Build proper roads (2)  
Proper sanitation facilities (2)  
Regular refuse removal (2)  
Erect flood lights / sputniks / apollo's (2)  
Provide recreational activities (2)  
Medical facilities and schools (2)  
[Any TWO] 2x2 = (4)
- 4.3.4 a) Grid-iron / block / rectangular (2) 1x2 = (2)
- b) Easy to lay out / plan (2)  
Easy to subdivide (2)  
Easy to build on rectangular blocks (2)  
Easy to find way around (2)  
[Any TWO] 2x2 = (4)
- c) Traffic congestion (2) Time wasted (2)  
Many accidents (2) Hijacking (2)  
Steep roads in hilly areas (2) Boring (2)  
[Any TWO] 2x2 = (4)
- 4.3.5 a) Rural-urban fringe (2)  
Transport zone (2)  
[Any ONE] 1x2 = (2)
- b) Need large tracts of land (2)  
Land cheaper outside the city (2)  
Noise away from suburbs (2)  
No danger of buildings and accidents (2)  
[Any ONE] 1x2 = (2)
- c) Large sphere of influence (2) 1x2 = (2)
- d) Few airports (2)  
People will travel over great distances to use this service (2) 2x2 = (4)
- [100]**

**QUESTION 5**

- 5.1.1 C (2) 1x2 = (2)
- 5.1.2 B (2) 1x2 = (2)
- 5.1.3 D (2) 1x2 = (2)
- 5.1.4 D (2) 1x2 = (2)
- 5.1.5 A (2) 1x2 = (2)
- 5.2.1 Winter (2) 1x2 = (2)
- 5.2.2 Fynbos (2) 1x2 = (2)
- 5.2.3 Cape Fold Mountains (2) 1x2 = (2)
- 5.2.4 Permanent (2) 1x2 = (2)
- 5.2.5 Durban-Pinetown (2) 1x2 = (2)
- 5.2.6 Summer (2) 1x2 = (2)
- 5.2.7 1 (2) 1x2 = (2)
- 5.2.8 Orange / Gariep / Senqu River (2) 1x2 = (2)
- 5.3.1 a) 2 000 million m<sup>3</sup> per year (2) 1x2 = (2)
- b) 2 000 million m<sup>3</sup> per year (2) 1x2 = (2)
- c) Orange / Gariep / Senqu River (2) 1x2 = (2)
- 5.3.2 Orange River basin much larger than Tugela River basin (2)  
Discharge for two river basins the same (2) 2x2 = (4)
- 5.3.3 Orange: Low rainfall area (2)  
High rainfall variability (2)  
High evaporation rate (2)  
Water infiltrates sandy soils easily (2)  
Water infiltrate dry soils easily (2)  
Many episodic river tributaries (2)
- Tugela: High rainfall area (2)  
Low rainfall variability (2)  
Low evaporation rate (2)  
Nature of soil allows for less infiltration (2)  
Moisture in soil allows for less infiltration (2)  
Tributaries are permanent rivers (2)
- [Any TWO] 2x2 = (4)
- 5.4.1 Karoo bush (2)  
Sweet grass (2) 2x2 = (4)

- 5.4.2 Eastwards (2) 1x2 = (2)
- 5.4.3 Overstocking (2)  
Overgrazing (2)  
Clearing grass areas for cultivation (2)  
Natural vegetation destroyed (2)  
Soil erosion sets in (2)  
Soil fertility drops (2)  
Weaker plant species take over (2)  
[Any TWO] 2x2 = (4)
- 5.4.4 Aesthetic value (2)  
Ethical reasons (2)  
Scientific value (2)  
Preserving genetic diversity (2)  
Vegetation provide habitats for other organisms (2)  
Vegetation provide food for other organisms (2)  
Stability in the environment (2)  
Recreation (2)  
Economic value (2)  
Preserving the quality of life (2)  
Maintaining balance in ecosystem (2)  
Medicinal value (2)  
[Any TWO] 2x2 = (4)
- 5.4.5 Reduction in stock numbers (2)  
Rotational grazing (2)  
Rotational cultivation (2)  
Revegetating with indigenous plants (2)  
Legislation to protect indigenous plants (2)  
Create nature reserves (2)  
Establish botanical gardens (2)  
Public education (2)  
Monitoring of the environment (2)  
[Any TWO – Accept other] 2x2 = (4)
- 5.5.1 a) Trevor Manuel (2) 1x2 = (2)  
b) Minister of finance (2) 1x2 = (2)
- 5.5.2 RDP – social (2)  
GEAR – economic (2) 2x2 = (4)
- 5.5.3 a) Provide basic needs (2)  
Improve housing (2)  
Provide running water in homes (2)  
Provide electricity (2)  
Build proper roads (2)  
[Any TWO] 2x2 = (4)

- b) Provide employment (2)  
Improve trade (2)  
Develop entrepreneurship (2)  
Attract investment to local governments (2)  
Reduce inflation rate (2)  
[Any TWO] 2x2 = (4)
- 5.6.1 Primary (2) 1x2 = (2)
- 5.6.2 Employment (2)  
Provide food (2)  
Exporting (2)  
Foreign income (2)  
Provide raw materials for industries (2)  
Development / growth of settlements (2)  
Development / growth of infrastructure (2)  
Linked to other enterprises (2)  
[Any TWO] 2x2 = (4)
- 5.6.3 a) Commercial (2) 1x2 = (2)
- b) Commercial farmers sell their crops (2)  
Commercially farmed crops exported (2)  
Provides income to country (2)  
Spin-off industries also creates income for country (2)  
[Any TWO] 2x2 = (4)
- 5.7.1 Decreases (2) 1x2 = (2)
- 5.7.2 Higher rainfall in east (2)  
More fertile soil in east (2)  
Farming concentrated in east (2)  
More minerals in east (2)  
Historical factors e.g. homelands established in east (2)  
Harbours and trade along the east coast (2)  
[Any TWO] 2x2 = (4)
- 5.7.3 a) Industrial activities in PWV (2)  
Mining activities (2)  
Many tertiary services (2)  
Many employment opportunities (2)  
Pretoria capital city (2)  
Head offices of many government departments / companies (2)  
Economic heartland (2)  
[Any TWO – Accept other] 2x2 = (4)

- b) On banks of Orange River (2)  
Irrigation farming (2)  
Intensive land use (2)  
[Any TWO] 2x2 = (4)

**[100]**

### QUESTION 6

- 6.1.1 A (2) 1x2 = (2)  
 6.1.2 C (2) 1x2 = (2)  
 6.1.3 C (2) 1x2 = (2)  
 6.1.4 B (2) 1x2 = (2)  
 6.1.5 D (2) 1x2 = (2)
- 6.2.1 Northwest (2) 1x2 = (2)  
 6.2.2 Kimberley (2) 1x2 = (2)  
 6.2.3 Port Elizabeth (2) 1x2 = (2)  
 6.2.4 30°E (2) 1x2 = (2)  
 6.2.5 Mozambique (2) 1x2 = (2)  
 6.2.6 Lowveld (2) 1x2 = (2)  
 6.2.7 Drakensberg (2) 1x2 = (2)  
 6.2.8 Limpopo (2) 1x2 = (2)
- 6.3.1 Process by which a desert gradually spreads into neighbouring areas (2)  
[Concept] 1x2 = (2)
- 6.3.2 Deforestation and vegetation clearance (2)  
Removal of vegetation through overgrazing and overcultivation (2)  
Incorrect ploughing methods (2)  
Cultivation of marginal areas (2)  
Irrigation without adequate drains (2)  
[Any TWO] 2x2 = (4)
- 6.3.3 Removal of vegetation: Cause soil particles to become loose (2)  
Eventually easily eroded (2)  
Soil fertility decreases (2)  
No more plant growth (2)

Incorrect ploughing methods: Where subsistence farming is being practiced  
outdated methods are used (2)  
Leads to topsoil being washed away (2)  
Ploughing up and down slopes increase  
sheet flow and soil erosion (2)  
Soil fertility decreases (2)

Cultivation of marginal areas: Soil fertility declines (2)  
Can no longer sustain plant growth (2)  
Soil easily eroded (2)

Irrigation without adequate drains: Water infiltrates and seeps away (2)  
Irrigation increases leaching (2)  
Soil fertility decreases (2)  
Plant growth no longer sustained (2)

[Discuss any ONE cause of deforestation] 2x2 = (4)

6.3.4 Unreliable rainfall leads to dry conditions / high rainfall variability (2)  
Low rainfall (2)  
High rate of evaporation (2)  
[Any TWO] 2x2 = (4)

6.3.5 Reduction in stock numbers (2) – Leads to less trampling of soil (2)  
Less overgrazing (2)  
Rotational cultivation (2) – Give soil time to rest (2)  
Fertility regained (2)  
Helps keep soil particles together (2)  
Revegetating with indigenous plants (2) – Protect soil against erosion (2)  
Bind soil together (2)  
Decaying plants provide nutrients (2)  
Create nature reserves (2) – Large tracts of land conserved (2)  
Ecosystem protected (2)  
Helps to protect the soil against erosion (2)  
[Discuss Any TWO methods – Accept other] 2x2 = (4)

6.4.1 Primary (2) 1x2 = (2)

6.4.2 Geology – wide variety of minerals (2)  
Minerals like coal close to the earth's surface and easily removed (2)  
Low geothermal gradient and temperatures do not increase rapidly as  
one goes underground (2)  
Large skilled and unskilled labour pool (2)  
Government support and protection (2)  
Well-developed infrastructure (2)  
Moderate climate result in pleasant working conditions (2)  
Devaluation of currencies (2)  
[Any THREE] 3x2 = (6)

Senior Certificate Examination  
Memorandum

- 6.4.3 Non-renewable minerals (2)  
 High accident rates in mines (2)  
 Health risks (2)  
 Underground water floods in mines (2)  
 Labour disputes and strikes (2)  
 Dependency on foreign markets (2)  
 Large distance between mines and harbours (2)  
 Water shortages (2)  
 Immigrants from other parts of southern Africa flocking into RSA (2)  
 High cost in training (2)  
 Fluctuation in mineral prices (2)  
 Change in demand for specific minerals (2)  
 [Any THREE] 3x2 = (6)
- 6.4.4 Provides employment (2)  
 Foreign exchange earned (2)  
 Trade relationships established (2)  
 Provide raw material for industries (2)  
 Plays role in development of settlements (2)  
 Plays role in development of infrastructure (2)  
 Mines pay tax to the government (2)  
 [Any THREE] 3x2 = (6)
- 6.5.1 Raw materials processed / manufactured into a useful product (2) 1x2 = (2)
- 6.5.2 Pretoria-Witwatersrand-Vereeniging (2) 1x2 = (2)
- 6.5.3 Large pool of skilled and unskilled labourers (2)  
 Rich in raw materials (2)  
 Good transport network (2)  
 Close to large power sources / electricity (2)  
 Availability of water form water transfer schemes (2)  
 Flat land on the Plateau (2)  
 Large market (2)  
 [Any THREE] 3x2 = (6)
- 6.5.4 Overuse of water (2)  
 Electricity shortages (2)  
 Congestion on roads (2)  
 Lack of open space for development (2)  
 Air pollution (2)  
 Overpopulation (2)  
 Strategically vulnerable (2)  
 Far from foreign markets (2)  
 Large distances to harbours (2)  
 [Any THREE] 3x2 = (6)

- 6.5.5 SASOL (2)  
ISCOR/MITTAL (2)  
AECI (2)  
Motor Vehicle Assembly (2)  
Atlas Aircraft Corporation (2)  
[Any ONE – Accept other] 1x2 = (2)
- 6.6.1 Tugela-Vaal (2) 1x2 = (2)
- 6.6.2 Irrigation (2)  
Mining (2)  
Domestic use (2)  
[Any ONE] 1x2 = (2)
- 6.6.3 a) Hydro-electricity (2) 1x2 = (2)  
b) South Africa is a dry country (2)  
Not enough perennial rivers to generate hydro-electricity (2) 2x2 = (4)
- 6.7.1 Increasing (2) 1x2 = (2)
- 6.7.2 Overpopulation (2)  
Unemployment (2)  
Services cannot cope e.g. electricity and water supply (2)  
Food shortages (2)  
Housing shortages (2)  
Increase in crime (2)  
[Any ONE] 1x2 = (2)
- 6.7.3 Educate people (2)  
Improve standard of living (2)  
Introduce birth control (2)  
Family planning clinics (2)  
[Any ONE – Accept other reasonable solutions] 1x2 = (2)

**[100]**