



education

Department:
Education
REPUBLIC OF SOUTH AFRICA

**NATIONAL
SENIOR CERTIFICATE**

GRADE 12

GEOGRAPHY P1

NOVEMBER 2009

MEMORANDUM

MARKS: 300

This memorandum consists of 18 pages.

SECTION A**QUESTION 1**

- 1.1.1 B (2)
- 1.1.2 D (2)
- 1.1.3 C (2)
- 1.1.4 A (2)
- 1.1.5 A / B / D (2) 5x2=(10)
- 1.2.1 pirate / captor (2)
- 1.2.2 captured / beheaded (2)
- 1.2.3 misfit / beheaded (2)
- 1.2.4 elbow of capture (2)
- 1.2.5 windgap / dry gap (2) 5x2=(10)
- 1.3.1 Develop along east coast (2)
 Latitudinal position similar (2)
 Move away from equator (2)
 Move east to west (2)
 Develop over warm tropical ocean (2)
 Develop on western side of ocean (2)
 [Any ONE] 1x2 = (2)
- 1.3.2 Originate between 5° - 25°N and S (2)
 Need Coriolis force that comes into operation at 5° (2)
 Coriolis force does not exist at equator (2)
 Situated over hot ocean / 26°C - 27°C (2)
 Greatest evaporation between 5° - 25° N and S (2)
 Latent heat needed for development, stored in water vapour (2)
 Large scale condensation (2)
 Temperature high in these latitudes (2)
 Low pressure (2)
 Cyclones do not develop where there are high pressures / anti-cyclones (2)
 Develop along east coast (2)
 [Any THREE] 3x2 = (6)
- 1.3.3 Global warming increases temperatures (2)
 Ocean temperatures increase and stay warmer for longer (2)
 Increased temperatures increase evaporation / humidity / condensation (2)
 Leads to the release of more latent heat (2)
 Leads to the deepening of the low (2)
 More energy thus more intense hurricanes developing more often (2)
 [Any THREE] 3x2 = (6)
- 1.3.4 Southern Africa is shielded / protected by Madagascar (2)
 Tropical cyclones dissipate over Madagascar / friction over Madagascar (2)
 Steered away by South Indian Anticyclone / High Pressure (2)
 Recurved away from coast (2)
 Move to colder ocean (2)
 [Any ONE] 1x2 = (2)

1.3.5 **United States of America**

- USA is a developed nation (2)
- USA has more and better developed infrastructure (2)
- Eastern coastal areas low lying and damage occurs readily (2)
- More can be damaged (2)
- Warning systems are readily available (2)
- Earlier evacuations can take place (2)
- Better rescue services (2)
- Health facilities are more readily available (2)
- Less loss of life (2)

Southern Africa

- Southern Africa includes developing nations compared to the USA (2)
- Southern Africa has little and poorly developed infrastructure (2)
- Less can be damaged (2)
- Warning systems are not able to reach the majority of the population as some of them are in deep rural areas (2)
- Few early evacuations can take place (2)
- Not enough rescue services (2)
- Few health facilities are available (2)
- More loss of life (2)

[Candidates can refer to EITHER some aspects for the USA and some for southern Africa **OR** can answer as comparison.]

[Single marks only if answered in point form and not in paragraph / essay style]

6x2=(12)

1.4.1 Sea breeze (2)

1x2 = (2)

1.4.2 Happens on small / local scale / in immediate surroundings (2)

- Microclimatic condition (2)
- Tertiary circulation (2)

[Concept]
[Any ONE]

1x2 = (2)

1.4.3 Land heats up more during daytime (2)

- Causes low pressure to develop over land (2)
- Air rises over land (2)
- Sea takes longer to heat up during the day (2)
- High pressure at sea (2)
- Air moves from high to low pressure (2)
- Breeze from sea to land (2)
- [Any THREE]

3x2 = (6)

1.4.4 High-income suburbs along the coastline will benefit from the cooling /

- Moderating effect of the sea breeze (2)
- Experiences clean, fresh air (2)
- Breeze blows from sea to land (2)
- [Any ONE]

1x2 = (2)

- 1.5.1 Homoclinal ridges / cuestas (2) 1x2 = (2)
- 1.5.2 Sedimentary rock that is tilted (2)
 Softer layers will erode faster to form valleys (2)
 Resistant layers will erode slower and protrude as ridges (2)
 Tectonic activity (faulting / folding) causes sedimentary rock to move past one another (2)
 As a result resistant layers will protrude above the surface (2)
 [Any THREE] 3x2 = (6)
- 1.5.3 Trellis (2) 1x2 = (2)
- 1.5.4 Ridges and valleys are parallel (2)
 Alternating resistant and soft rock layers (2)
 Therefore main streams flow parallel to each other (2)
 Short tributaries flow down the ridges and meet main streams (2)
 Tributaries join main stream at right angles (2)
 [Any THREE] 3x2 = (6)
- 1.5.5 (a) Bulk movement of material down a slope under the influence of gravity (2)
 [Concept] 1x2 = (2)
- (b) (i) = Q (2)
 Reason: Slope is gentle (2)
 Slow movement (2)
 [Any ONE reason]
- (ii) = P (2)
 Reason: Slope is steep (2)
 Fast movement (2)
 [Any ONE reason] 4x2 = (8)
- (c) Speed of the movement of materials down the slope (2)
 Volume / quantity of material moving down the slope (2)
 [Any ONE] 1x2 = (2)
- (d) **Man's contribution:**
 Deforestation destabilises slope (2)
 Cultivation on slopes destabilises slope (2)
 Non-engineered construction of roads / railways loosens rock particles (2)
 Obstructing natural drainage increases water in soil (2)
 Improper drainage increases water in soil (2)
 Mining and quarrying loosen the rock particles (2)

Economic consequences:

- Destruction of settlements (2)
- Destruction of infrastructure (2)
- Railway line blocked (2)
- Goods cannot be transported (2)
- Destruction of cultivated lands (2)
- Expensive to rebuild (2)
- Loss of property (2)

Measures:

- Concrete spraying on slopes (2)
- Building tunnel roofs (2)
- Wire mesh (2)
- Gabions (building of retaining walls) (2)
- Drilling of bolts into the side of slopes to stabilise slopes (2)
- Cause artificial rockfalls to clear debris (2)
- Reforestation or revegetation (2)
- Putting up wire nets to catch falling rock particles (2)
- Mapping of landslide hazards (2)
- Guidelines for planning human settlements and infrastructure (2)
- Landslide disaster management strategies (2)
- Avoid developing settlements on slopes (2)
- No cultivation on slopes (2)

[Must make at least ONE reference to each of the THREE aspects.]

**[Single marks only if answered in point form and not in paragraph /
essay style]**

6x2=(12)

[100]

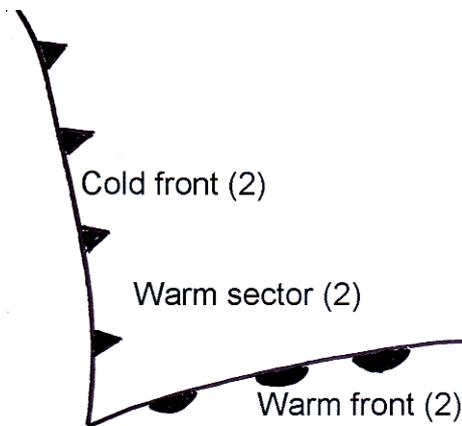
QUESTION 2

- 2.1.1 False (2)
- 2.1.2 True (2)
- 2.1.3 True (2)
- 2.1.4 False (2)
- 2.1.5 False (2) 5x2=(10)

- 2.2.1 horizontal (2)
- 2.2.2 cliff (2)
- 2.2.3 resistant (2)
- 2.2.4 remains constant (2)
- 2.2.5 wider (2) 5x2=(10)

- 2.3.1 a) Midlatitude / temperate cyclone / midlatitude depression /
frontal depression / extra-tropical cyclone (2) 1x2 = (2)
- b) Winter (2) 1x2 = (2)
- c) West to east / eastward / to the east (2) 1x2 = (2)
- d) Situated in the westerly windbelt (2)
Driven by the westerly winds (2)
[Any ONE] 1x2 = (2)

e)



[Award single marks if no labels] 3x2 = (6)

2.3.2 Value of weather forecasts and warnings:

- To timeously alert people (2)
- Possible precautionary measures can be taken (2)
- Evacuation can take place (2)
- Preparation can be done in terms of protection for harsh weather (2)
- Fishermen will know not to go out on the sea (2)
- Cancel outdoor activities (2)
- Rescue services alerted beforehand (2)
- Tourists can adjust their plans (2)
- [Accept others]

Role of the public:

Forecasts will be localised and not generalised (2)

Used for further research (2)

Will improve predictions (2)

Preventative measures can also be localised (2)

[Accept others]

[Must make at least ONE reference to each of the aspects.]

[Single marks only if answered in point form and not in paragraph / essay style]

6x2=(12)

2.4.1 A rise / increase in temperature with increase in altitude (2)

[Concept]

1x2 = (2)

2.4.2 B (2)

1x2 = (2)

2.4.3 Inversion layer is above the escarpment (2)

The base of the inversion is higher above sea level (2)

Moist air is advected onto the plateau (2)

[Any ONE]

1x2 = (2)

2.4.4 **Summer:**

Moist air will reach the interior (2)

High humidity (2)

More condensation (2)

Cloud formation (2)

Precipitation (2)

Smaller temperature range (2)

Winter:

Moist air prevented from reaching interior (2)

Low humidity (2)

Little condensation (2)

No / few clouds (2)

Colder night temperatures (2)

Frost may occur (2)

Larger temperature range (2)

[Any FOUR. Must refer to summer and winter]

4x2 = (8)

2.5.1 The total area drained by the river and its tributaries (2)

[Concept]

1x2 = (2)

2.5.2 Dendritic (2)

1x2 = (2)

2.5.3 Looks like branches of a tree (2)

Tributaries join at small angles / acute angles (2)

[Any ONE]

1x2 = (2)

- 2.5.4 At A there is no vegetation (2)
Water is not easily absorbed (2)
More run-off occurs (2)
Therefore more tributaries (2)
At B there is dense vegetation (2)
Water is easily absorbed (2)
Less run-off occurs (2)
Therefore fewer tributaries (2)
[Any THREE] 3x2 = (6)
- 2.5.5 3rd order (2) 1x2 = (2)
- 2.5.6 (a) Y / X (2) 1x2 = (2)
- (b) If Y
Gentle slope slows flow of water down (2)
Flows on a wide flood plain and water spread easily (2)
More water from tributaries increases volume of water (2)
Deposition makes stream channel shallower (2)
Meandering river increases flooding (2)
Cultivation on river banks (2)
If X
Lack of vegetation (2)
Reduced infiltration (2)
Overland flow / sheet flow increases (2)
Steeper incline increases run-off (2)
Smaller channels cannot handle increased run-off (2)
High drainage density / fine texture (2)
[Reasons must reflect answer to QUESTION 2.5.6(a)]
[Any THREE] 3x2 = (6)
- (c) Build large dams in the lower reaches to control flow (2)
Build artificial levées (2)
Straighten the river channel to increase gradient (2)
Build small dams in the upper reaches and release water at intervals (2)
Line the river bed with concrete to reduce friction (2)
Revegetate / protect vegetation (2)
Correct farming methods e.g. contour ploughing (2)
Avoid building below the flood line (2)
[Any THREE. Accept others] 3x2 = (6)

2.5.7 Measures to restore the drainage basin:

Revegetation and afforestation (2)

Intensive use of manure and compost to increase infiltration (2)

Avoid ploughing close to the river (2)

Use appropriate methods of agriculture e.g. contour ploughing (2)

Terracing of slopes (2)

Fencing of catchment areas (2)

Avoid overgrazing (2)

Avoid construction on floodplains (2)

Legislation on water usage (2)

Monitoring of water usage by various economic sectors (2)

Protection against soil erosion (2)

Protection of groundwater supplies (2)

Adopt drainage management strategies (2)

[Accept other measures]

**[Any SIX. Single marks only if answered in point form and not in paragraph /
essay style]**

6x2=(12)

[100]

SECTION B**QUESTION 3**

- 3.1.1 transitional zone / zone of decay (2)
- 3.1.2 industrial park (2)
- 3.1.3 high-income residential (2)
- 3.1.4 central business district (CBD) (2)
- 3.1.5 greenbelt (2) 5x2=(10)
- 3.2.1 Industry (2)
- 3.2.2 Shops / informal businesses (2)
- 3.2.3 Transport (2)
- 3.2.4 Entertainment (2)
- 3.2.5 Transport (2) 5x2=(10)
- 3.3.1 Rural (2) 1x2 = (2)
- 3.3.2 (a) Hamlet / village (2) 1x2 = (2)
- (b) Unifunctional / rural (2) 1x2 = (2)
- 3.3.3 The actual piece of land at which a settlement is located (2)
[Concept] 1x2 = (2)
- 3.3.4 Availability of water (river) (2)
- Fertile soil (2)
- Grazing land / pasturage (2)
- Gentle slope (2)
- Thermal belt (2)
- Dry point settlement (2)
- [Any ONE] 1x2 = (2)
- 3.3.5 **Role that local Agenda 21 could play:**
- Improve quality of life of people (2)
- Satisfaction of human basic needs must be addressed (2)
- Consultation with local community (2)
- Use resources well to promote equity (2)
- Strategies must be economically viable (2)
- Social, economic and environmental issues must be integrated (2)
- Concern for the future must be taken into account (2)
- Use indigenous knowledge to maintain a healthy environment (2)
- Local development must be linked to conservation / work within ecological limits (2)
- [Any SIX. Accept other logical measures]
- [Single marks only if answered in point form and not in paragraph / essay style]** 6x2=(12)

- 3.4.1 Heavy (2) 1x2 = (2)
- 3.4.2 It is on the outskirts of the city (2)
Large buildings (2)
Air pollution occurs (2)
Flat land (2)
[Any ONE] 1x2 = (2)
- 3.4.3 Need large piece of open land (2)
Land cheaper on the outskirts of cities (2)
Cause noise pollution (2)
Air pollution (2)
Associated with bad odours / smells (2)
Often involve dangerous activities (2)
Must be close to bulk transport facilities (2)
[Any THREE. Accept other] 3x2 = (6)
- 3.4.4 Greenbelt (2) 1x2 = (2)
- 3.4.5 Vegetation will clean up the air (2)
Greenbelts release oxygen and absorb carbon dioxide (2)
[Any ONE] 1x2 = (2)
- 3.4.6 Supply oxygen (2)
Act as recreational facilities (2)
Add beauty (aesthetic value) (2)
Haven for wild life (2)
Cooling effect (2)
Prevent uncontrolled urban expansion (2)
[Any TWO] 2x2 = (4)
- 3.5.1 Industrial Development Zone (2) 1x2 = (2)
- 3.5.2 Eastern Cape (2) 1x2 = (2)
- 3.5.3 Provide employment (2)
Attract foreign investment (2)
Boost trade and export (2)
Infrastructural development (2)
Boost the economy of the province (2)
Boost tourism (2)
[Any TWO. Accept other] 2x2 = (4)
- 3.5.4 Serve as a gateway for export (2)
Facilitates bulk imports and exports (2)
Other African countries can use harbour for bulk imports and exports (2)
Easier access to world markets (2)
General cargo can be handled with greater ease (2)
Container cargo can increase (2)
Bulk terminals will improve exporting and importing (2)
[Any THREE. Accept other] 3x2 = (6)

- 3.5.5 (a) The difference between money earned from exports and money spent on imports (2)
[Concept] 1x2 = (2)
- (b) More products will be exported (2)
More foreign capital earned (2)
Positive balance of trade (2)
[Accept other] 3x2 = (6)
- 3.5.6 2010 soccer stadium (2)
Golf estates (2)
International convention centre (2)
Extension of runway at the airport (2)
Alcan Aluminium smelter (2)
New shopping malls (2)
[Any TWO] 2X2 = (4)
- 3.5.7 Can bring in foreign investment (2)
Foreign capital (2)
Create jobs (2)
Boost the economy (2)
[Any ONE. Accept other] 1x2 = (2)
- 3.5.8 **Social and environmental injustices:**
Social or moral ills (2)
Exploitation of workers through cheap labour (2)
Unhealthy conditions develop (2)
Quality of life deteriorates (2)
Disturbance of ecosystem (2)
Biodiversity decreases (2)
Air pollution (2)
Water pollution (2)
Noise pollution (2)
Overexploitation of the sea (2)
[Accept other]

Measures to minimise injustices:

Regulate the industry with laws (2)

Protect the natural environment (2)

Sustainable development of resources (2)

Educate the communities on rights and responsibilities (2)

Provide training for people to be employed by new industries (2)

Employ local community (2)

Develop the human resource capacity of local inhabitants through training and education (2)

Local communities to benefit from economical development (2)

Consultation with local communities (2)

Recognise land rights of local communities (2)

Historical importance of area for local communities to be kept in mind (2)

[Accept other]

[Must make at least ONE reference to each of the aspects]

[Single marks only if answered in point form and not in paragraph / essay style]6x2=(12)
[100]

QUESTION 4

- 4.1.1 E (2)
- 4.1.2 B / E / F (2)
- 4.1.3 A / C (2)
- 4.1.4 A / D / F (2)
- 4.1.5 C / E (2) 5x2=(10)
- 4.2.1 B (2)
- 4.2.2 B (2)
- 4.2.3 A (2)
- 4.2.4 D (2)
- 4.2.5 C (2) 5x2=(10)
- 4.3.1 CBD (2) 1x2 = (2)
- 4.3.2 (a) Where a certain area can be easily reached by the maximum number of people at the minimum travelling cost (2)
[Concept] 1x2 = (2)
- (b) Competition for land for commercial functions (2)
High land values (2)
Space must be used economically (2)
Buildings will be tall and close to one another (2)
Influx of vehicles result in traffic jams (2)
Major delays in travelling time (2)
Noise and air pollution increases (2)
No longer viable to go to CBD (2)
[Any THREE. Accept other] 3x2 = (6)
- (c) Yes (2)
Congestion makes it difficult to reach CBD (2)
Crowding of streets makes it difficult to reach CBD (2)
No parking (2)
Outdated street plan hampers flow of traffic (2)
OR
No (2)
Transport available to the CBD (2)
Major routes still go into the city (2)
Good transport systems (2)
Measures put in place to keep single motor vehicle out of city (2)
[Yes/No + Any ONE reason] 2x2 = (4)
- 4.3.3 Physical separation between place of work and place of residence (2)
Most intracity and intercity transport routes meet here (2)
Daily influx of motor vehicles (2)
Rise in commuting (2)
Tremendous pressure on transport systems (2)
Outdated transport infrastructure (2)
Outdated street pattern (2)
[Any TWO. Accept other] 2x2 = (4)

- 4.3.4 Accommodate motor vehicle in city centre by constructing parking garages and parking areas (2)
 Design freeways, one-way streets (2)
 Synchronise robots (2)
 Decentralise commercial enterprises (2)
 Improve old grid-iron street patterns (2)
 Widen roads (2)
 Make shopping hours more flexible (2)
 Flexi-time for workers in the CBD (2)
 Construct “park and ride” facilities on the fringe of the CBD (2)
 Use public transport (2)
 Introduce parking meters (2)
 Establish lift clubs (2)
 Forbid vehicles at certain times of the day in CBD (2)
 [Any TWO. Accept other] 2x2 = (4)

4.3.5 **Functional magnetism**

Functional institutions, clothing shops, theatres and cinemas, etc. that are already in the city centre attract similar functions to the area (2)
 Individually each of them benefit from being located closer to similar establishments (2)
 In this way small local clusters of a specific functional type develop in the city centre (2)

Functional prestige

A particular street or street block in the city centre becomes known for a certain function (2)

This attracts other enterprises of the same type (2)

Functional convenience

Some people find it convenient to live close to the theatres, shops, government offices and other facilities (2)

They therefore choose to live in flats in the city rather than in outlying suburbs (2)

[Learner can discuss any ONE of the centripetal forces **OR** give FULL marks for a general discussion on centripetal forces] 3x2 = (6)

4.3.6 **Reasons for urban renewal:**

Reverse serious decline (2)
 Saving and renovating old buildings to original state - examples (2)
 Attract tourists (2)
 Attract investors (2)
 Reduce crime (2)
 Provide open spaces for recreation for urban dwellers (2)

Why emphasis placed on:

Service delivery failure

Service delivery not up to standard (2)

Led to urban decay (2)

Poor condition of infrastructure e.g. roads, electricity, storm water management (2)

Poor service delivery impact negatively on economic development (2)

Services should be more accessible, e.g. public toilets (2)

Rehabilitating buildings

- Buildings are dilapidated (2)
- Led to urban blight (2)
- Is a health hazard (2)
- Are hazardous to human life (2)
- Will attract investment (2)
- Restoring of buildings for historical reasons (2)
- Attract tourists / visitors (2)
- Beautification of city (2)
- Will prevent vagrants from moving into buildings (2)
- Will help create a healthier environment (2)

Waste management

- Waste not regularly collected (2)
- Health hazard / diseases (2)
- If well managed a healthier environment will be created (2)
- Breeding ground for rodents (2)
- Piling up of waste unsightly (2)
- Cities will be more attractive and attract investment and tourists (2)

Bylaw enforcement

- Collapse of bylaw enforcement led to social and moral decay (2)
- Illegal trading and prostitution (2)
- Law enforcement agencies must cooperate to curb illegal trading on pavements (2)
- To ensure healthier conditions in cities (2)
- Prevent spreading of diseases (2)
- Bylaws on social life, e.g. prostitution (2)
- Create a safer environment (2)

[Must refer to reasons for renewal and at least ONE reference to any TWO of the above issues. Accept other]

[Single marks only if answered in point form and not in paragraph / essay style]

6x2=(12)

4.4.1 (a) A (2)

1x2 = (2)

- (b) Use of machinery (tractor) (2)
- Large piece of land for farming (2)
- Well-ordered cultivated lands (2)
- [Any ONE]

1x2 = (2)

- (c) Different climatic regions ensure variety of agricultural products (2)
 Fertile soil in eastern half of country (2)
 Availability of land for farming (2)
 Availability of water – transfer schemes (2)
 Enough sunny periods (2)
 Winter rains in Western Cape (2)
 Summer rains (2)
 South Africa has long history of research / agricultural education (2)
 Newly-developed plant strains are introduced (2)
 Climate research makes drought prediction more accurate (2)
 Government support structures (2)
 Low-interest loans by the Land Bank (2)
 Large local market (2)
 [Any TWO. Accept other.] 2x2 = (4)
- (d) Unreliable rainfall (2)
 High rainfall variability (2)
 Periodic droughts (2)
 Scarcity of water for irrigation (2)
 Infertile soil in western half of country (2)
 Mountainous areas in eastern half of the country (2)
 Soil ruined through overexploitation (2)
 Unskilled labour (2)
 Fluctuating prices (2)
 Reduction of state subsidies and protective tariffs (2)
 [Any TWO. Accept other.] 2x2 = (4)
- (e) Export of agricultural products (2)
 Foreign income provided (2)
 Create employment (2)
 Raw material for secondary activities (2)
 Provide food for growing population – market (2)
 Promoted development of infrastructure (2)
 Promoted development of urban settlements (2)
 Provide country with income through taxes (2)
 [Any THREE. Accept other.] 3x2 = (6)
- (f) Less water in the stream (2)
 Polluted water (2)
 Production / yields decrease (2)
 Less food / food shortages (2)
 Population can no longer be fed (2)
 Food will have to be imported (2)
 [Any THREE. Accept other] 3x2 = (6)

4.4.2 Pollution by industries (2)

Domestic pollution (2)

Agricultural waste (2)

Litter from human activities (2)

Deforestation (2)

Water wastage by washing cars, watering gardens, etc. (2)

Wasteful usage of water in homes (2)

Some waste cannot be decomposed, e.g. DDT (2)

Irrigation in areas that are dry and have high evaporation rates (2)

[Any TWO. Accept other. Answer not limited to diagram.]

2x2 = (4)

4.4.3 **Why implement a catchment management strategy:**

Low rainfall limits surface water (2)

Unreliable rainfall limits surface water (2)

Protection of groundwater reserves (2)

High evaporation rates result in little surface water (2)

High frequency of droughts (2)

No permanent snowfields to feed catchment area (2)

Safe / clean water for future generations (2)

Keep catchment area clean (2)

Secure balanced ecosystem (2)

Protect habitat of living organisms (2)

Protect biodiversity (2)

Protect natural beauty (2)

Sustainable use of water as a resource (2)

Ensure availability of clean water for domestic purposes (2)

Ensure availability of clean water for agricultural purposes (2)

Protect scenic beauty of catchment area for ecotourism (2)

[Any SIX. Accept other]

[Single marks only if answered in point form and not in paragraph / essay style]6x2=(12)
[100]**GRAND TOTAL: 300**

