



# basic education

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Department:  
Basic Education  
**REPUBLIC OF SOUTH AFRICA**

**NATIONAL  
SENIOR CERTIFICATE**

**GRADE 12**

**GEOGRAPHY P1**

**FEBRUARY/MARCH 2015**


**MEMORANDUM**

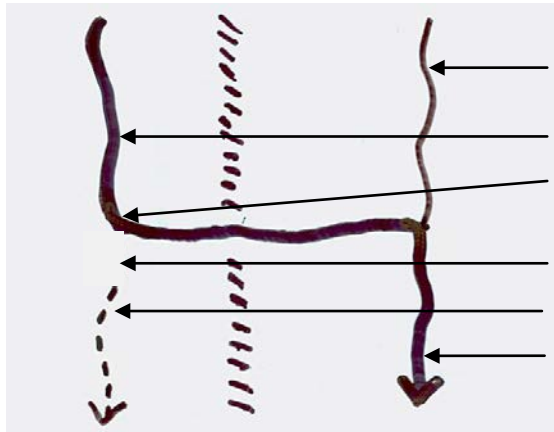
**MARKS: 225**

**This memorandum consists of 15 pages.**

**SECTION A****QUESTION 1**

- |     |       |   |             |
|-----|-------|---|-------------|
| 1.1 | 1.1.1 | A (1)   |             |
|     | 1.1.2 | B (1)   |             |
|     | 1.1.3 | A (1)   |             |
|     | 1.1.4 | B (1)   |             |
|     | 1.1.5 | B (1)   |             |
|     | 1.1.6 | A (1)   |             |
|     | 1.1.7 | A (1)   | (7 x 1) (7) |
| 1.2 | 1.2.1 | I (1)   |             |
|     | 1.2.2 | H (1)   |             |
|     | 1.2.3 | D (1)   |             |
|     | 1.2.4 | A (1)   |             |
|     | 1.2.5 | G (1)   |             |
|     | 1.2.6 | C (1)   |             |
|     | 1.2.7 | B (1)   |             |
|     | 1.2.8 | F (1)   | (8 x 1) (8) |
| 1.3 | 1.3.1 | The direction in which a slope faces/The angle at which the sun's rays strike a slope (1)<br>[CONCEPT]  | (1 x 1) (1) |
|     | 1.3.2 | The north-facing facing slope is receiving the direct rays of sunlight, in the Southern Hemisphere (1)  | (1 x 1) (1) |
|     | 1.3.3 | The area at A does not receive direct sunlight (2)<br>Area A is facing away from the sun's rays (2)<br>High lying area casts a shadow over slope A (2)<br>[ANY ONE] | (1 x 2) (2) |
|     | 1.3.4 | Air in contact with slopes heated (2)<br>Air becomes light/less dense (2)<br>Air rises along the slope (2)<br>[ANY TWO]   | (2 x 2) (4) |

- 1.3.5 North-facing slopes in the southern hemisphere receive more sunlight throughout the year(2)  
Crops that require direct sunlight would be more well suited at area D (2)  
Descending cold air forms frost pockets on the valley floor(2)  
Crops that are sensitive to frost should not be planted in the frost pocket (C) (2)  
Frost resistant crops to be planted at C (2)  
Soils on the north-facing slope is also drier as a result of higher levels of evaporation (2)  
Farmers will have to irrigate the north-facing slope, to successfully plant crops here (2)  
The farmstead can be located on a higher slope as it is warmer/in the thermal belt (2)  
[ANY FOUR] (4 x 2) (8)
- 1.4 1.4.1 Summer (1) (1 x 1) (1)
- 1.4.2  (1) (1 x 1) (1)
- 1.4.3 The very low air pressure at the centre of the cyclone (992 hPa) (2)  
Very steep pressure gradient/4 isobars surrounding the area of low pressure are very close together (2)  
The eye has developed(2)  
[ANY ONE] (1 x 2) (2)
- 1.4.4 Calm, with no winds (2)  
No rain (2)  
No clouds (2)  
Low pressure(2)  
Ocean surface temperature of higher than 26,5°C (2)  
[ANY TWO] (2 x 2) (4)
- 1.4.5 A tropical cyclone requires high levels of evaporation (2)  
Latent heat to originate (2)  
Convection currents of warm, moist, rising air can create cumulonimbus clouds (2)  
[ANY ONE] (1 x 2) (2)
- 1.4.6 Putting evacuation plans in place for getting people out of danger areas (2)  
There must be rescue teams to rescue people from flooded areas (2)  
A good forecasting system is essential to track and predict the path of a tropical cyclone and to issue warnings (2)  
Organisation of a first aid kit and batteries for radios, lamps and torches (2)  
Stock up on canned food and water supplies (2)  
Place sand bags along rivers and coastal areas to reduce the impact of flooding (2)  
Erect wooden shutters on windows and educate people to stay away from windows and doors during the storm (2)  
[ANY TWO] (2 x 2) (4)

- 1.5 1.5.1 A high-lying area that separates two drainage basins (1) (1 x 1) (1)
- 1.5.2 Rivers are actively involved in eroding and depositing material over time, this will change the position of the watershed (2) (1 x 2) (2)
- 1.5.3 The erosion of the stream occurs near the source and lengthens the river (2)  
The erosion of the stream lengthens its course up stream and erodes through the watershed (2)  
[ANY ONE] (1 x 2) (2)
- 1.5.4 Flow down a steep slope (2)  
Greater rainfall resulting in higher velocity and increased erosive power on the side of tributary C (2)  
The tributary C flows on less resistant rocks with faults and joints (2)  
[ANY TWO] (2 x 2) (4)
- 1.5.5  Correct diagram (2 marks) and any ONE correct label (2 marks) (2 x 2) (4)
- 1.5.6 B (2)  
Low lying river (2)  
[ANY ONE] (1 x 2) (2)
- 1.6 1.6.1 Meander (1) (1 x 1) (1)
- 1.6.2 Width (1) and depth (1) (2 x 1) (2)
- 1.6.3 Slip-off slope (1) (1 x 2) (2)
- 1.6.4 The boys do not understand the difference between the slopes on the river bend/Where the slip off slope is, it is shallow and where the undercut slope is, it is deeper (2)  
[CONCEPT] (1 x 2) (2)

**1.6.5 Difference in the formation of slopes A and B**Slope A - Undercut slope

It is the undercut cut slope that is associated with fast flowing water (2)

Lots of energy resulting in the process of lateral erosion (2)

It occurs on the outer bank of the meander (2)

The slope is steep and concave (2)

Slope B - Slip-off slope

It is the slope that is associated with a slower flowing water (2)

More friction and slower flowing resulting in deposition (2)

It occurs on the inner bank of the meander (2)

The slope is gentle and convex (2)

[ANY FOUR]

(4 x 2) (8)  
**[75]**

**QUESTION 2**

- 2.1 2.1.1 3° C (1)
- 2.1.2 -2° C (1)
- 2.1.3 Northwest/West of North West (1)
- 2.1.4 25 knots (1)
- 2.1.5 BETWEEN 988 and 992 hPa (1)
- 2.1.6 8/8/Overcast (1)
- 2.1.7 Rain (1) (7 x 1) (7)
- 2.2. 2.2.1 C (1)
- 2.2.2 B (1)
- 2.2.3 C (1)
- 2.2.4 A (1)
- 2.2.5 C (1)
- 2.2.6 B (1)
- 2.2.7 C (1)
- 2.2.8 A (1) (8 x 1) (8)
- 2.3 2.3.1 West to East/Eastwards/Easterly (1) (1 x 1) (1)
- 2.3.2 It has both a cold and a warm front that are well developed (2)  
The warm sector of the cyclone is visible behind the warm front (2)  
The cold sector of the cyclone is visible behind the cold front (2)  
Isobars are circular around the apex (2)  
The warm sector has a well-defined V shape (2)  
[ANY TWO] (2 x 2) (4)
- 2.3.3 The warm sector of air does not pass over South Africa (2)  
The warm sector passes further south, over the ocean (2)  
[ANY ONE] (1 x 2) (2)

**2.3.4 Occlusion process and associated weather**

An occlusion occurs when a cold front catches up with a warm front at the centre of the mid-latitude cyclone (2)

This is due to the cold front moving faster than the warm front as it is cold and dense air (2)

This forces all warm sector air off the surface (2)

This results in cool and cold air masses behind the cold front and in front of the warm front (2)

The coldest of these air masses forces the cool air to rise resulting in light showers (2)

Thereafter the fronts collapse (2)

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

- 2.4 2.4.1 A zone between the warm moist air from the Indian Ocean and the cold dry air from the Atlantic Ocean/A zone between two air masses with different moisture content (1)  
[CONCEPT] [ANY ONE] (1 x 1) (1)
- 2.4.2 A – Warm, moist air – onshore flow from Indian (warmer) Ocean where levels of evaporation are higher (1)  
B – Cold, less moist air – onshore flow from the Atlantic (colder) Ocean where levels of evaporation are lower (1) (2 x 1) (2)
- 2.4.3 Line Thunderstorm/ Squall (2) (1 x 2) (2)
- 2.4.4 Eastern side (2) (1 x 2) (2)
- 2.4.5 Warm, less dense and moist air comes from the northeast (A) (2)  
Collides with cold, dry air mass from the southwest (B) (2)  
Warm, moist air east of the moisture front rises (2)  
Condensation of warm, moist air east of the moisture front (2)  
[ANY TWO] (2 x 2) (4)
- 2.4.6 Hail (damage to crops) (2)  
Lightning (start fires) (2)  
Heavy rainfall (2)  
Flooding (2)  
Soil oversaturated (2)  
[ANY TWO] (2 x 2) (4)
- 2.5 2.5.1 Total area drained by a river and its tributaries (1)  
[CONCEPT] (1 x 1) (1)
- 2.5.2 Water that moves directly on the earth's surface during rainfall/Water that flows over the land when rainfall is heavy or the soil is saturated with water (1)  
[CONCEPT] (1 x 1) (1)

- 2.5.3 Impermeable rock (2)  
Steep gradient (2)  
Lack of vegetation (2)  
Heavy rainfall (2)  
Saturated soil (2)  
Low evaporation rate (2)  
[ANY TWO] (2 x 2) (4)
- 2.5.4 (a) Increase (2) (1 x 2) (2)  
(b) Higher rainfall increase the number of tributaries to the main river(2)  
More first order streams form (2)  
Stream order of rivers lower down increases (2)  
[ANY TWO] (2 x 2) (4)
- 2.6 2.6.1 Lower course (1) (1 x 1) (1)
- 2.6.2 Mouth (1) (1 x 1) (1)
- 2.6.3 The slope is gentle (2)  
There is a reduction in the energy and velocity of the river (2)  
Stream load exceeds the carrying capacity (2)  
When the stream enters the sea, it stops flowing (2)  
Immediate deposition occurs (2)  
[ANY TWO] (2 x 2) (4)
- 2.6.4 Large stream load (2)  
Limited tidal activity (2)  
It is near the sea (mouth) and the river is able to deposit its load (2)  
Ocean currents not able to remove sediments from the river mouth (2)  
The saline conditions in the sea cause fine particles to flocculate (stick together) making the particles larger and heavier which then sink (2)  
[ANY TWO] (2 x 2) (4)
- 2.6.5 The delta forms fertile land for farming especially crops like rice (2)  
The delta provides plenty of water for fishing and aquaculture which can feed families and provide an income (2)  
Flat land for farming/mechanisation (2)  
The delta provides abundant water for domestic use (2)  
The delta provides for tourist attractions (2)  
The delta provides good transport links, possible to trade (2)  
[ANY FOUR] (4 x 2) (8)

**[75]**



**QUESTION 3**

- 3.1 3.1.1 Village (1)
- 3.1.2 There is a larger threshold population (1)
- 3.1.3 Farmstead (1)
- 3.1.4 City (1)
- 3.1.5 Megalopolis (1)
- 3.1.6 Offers many high order functions (1)
- 3.1.7 B (1)
- 3.1.8 Town (1) (8 x 1) (8)
- 
- 3.2 3.2.1 C (1)
- 3.2.2 F (1)
- 3.2.3 B (1)
- 3.2.4 G (1)
- 3.2.5 A (1)
- 3.2.6 H (1)
- 3.2.7 E (1) (7 x 1) (7)
- 
- 3.3 3.3.1 Circular/round (1) (1 x 1) (1)
- 3.3.2 Access to the village is restricted when the river floods (2)  
Not all cultivated areas have access to the river (2)  
Quality of roads affects transport (2)  
Farmer bound to communal decisions (2) (2 x 2) (4)
- 3.3.3 The village green provides a market for the cultivated crops (2)  
Access to the transportation networks (roads) for some of the farmers (2)  
Access to the river for some of the farmers will enable irrigation (2)  
[ANY ONE] (1 x 2) (2)

- 3.3.4 Implementation of land reform policies (2)  
 Provision of farming subsidies by the government (2)  
 Improved rural infrastructure and service delivery (2)  
 Land tenure to be designed for eventual ownership (2)  
 Agricultural schools to sustain development and growth in farming capacity (2)  
 Skills development and training of farmers on scientific methods of farming (2)  
 Cooperative techniques can be used to improve crop yields and profits (2)  
 [ANY FOUR] (4 x 2) (8)
- 3.4 3.4.1 The management of how the land is used (1)  
 [CONCEPT] (1 x 1) (1)
- 3.4.2 Rules and regulations must be set by local authorities (1)  
 Zoning permits must be issued by regulatory bodies of land management  
 councils within municipalities (2)  
 [ANY ONE] (1 x 2) (2)
- 3.4.3 Creates a more aesthetically pleasing environment (2)  
 Green belts regulate the amount of carbon dioxide and increases the amount of  
 oxygen (2)  
 Recreational areas for health and rejuvenation(2)  
 [ANY TWO] (2 x 2) (4)
- 3.4.4 Open Space Zones and Community use facility zones (2)  
 Open space zones and Residential zones (2)  
 Industrial zones and Transport zones (2)  
 [ANY ONE] (1 x 2) (2)
- 3.4.5 Parks and recreational areas are common in both zones (2)  
 Family use for relaxation and recreation (2)  
 Buffer for noise and pollution (2)  
 For movement of raw materials and finished products (2)  
 [ANY ONE] (1 x 2) (2)
- 3.4.6 Transport zones enable people to reach their places of work (2)  
 The population requiring public transport is constantly increasing (2)  
 Transport zones enable access to all other zones (2)  
 Transport zones enable the movement of goods and services (2)  
 For safety to reduce accidents (2)  
 To relieve traffic congestion (2)  
 [ANY TWO] (2 x 2) (4)
- 3.5 3.5.1 Western Cape (1) (1 x 1) (1)
- 3.5.2 To attract investment outside the major metropolitan areas where there is  
 potential for economic growth and job creation (2) (1 x 2) (2)

- 3.5.3 It has a rich reserve of oil and gas (2)  
It is located along the West Coast and enables trade relations with North and South America (2)  
Harbour that has expanded due to availability of iron ore. (2)  
Saldanha Bay has potential for development in agriculture, tourism and manufacturing industries (2)  
[ANY TWO] (2 x 2) (4)
- 3.5.4 Direct links to international ports and airports (2)  
World class infrastructure especially designed to attract tenants (2)  
Government incentive schemes (2)  
Reduced taxes and exemptions for some activities or products (2)  
Duty free benefits on raw materials that are imported (2)  
[ANY TWO] (2 x 2) (4)
- 3.5.5 Reduced electricity costs (2)  
Reduced pollution rates (2)  
Healthy environments (2)  
[ANY TWO] (2 x 2) (4)
- 3.6 3.6.1 PWV/Gauteng industrial region (1) (1 x 1) (1)
- 3.6.2 The mines provide raw materials for local industries (2)  
Mines also require equipment and other materials that they source from local industries (2) (2 x 2) (4)
- 3.6.3 The location along the coastline enables break- of- bulk points (2)  
Enables trade and transportation of goods to countries to the east and west of South Africa (2)  
[ANY ONE] (1 x 2) (2)
- 3.6.4 **Inland location of PWV**  
Labour – Gauteng has a growing pool of skilled, semi-skilled and unskilled labour (2)  
Energy – Resources of coal provide the energy to generate electricity (2)  
Markets – The mining industry and the fast growing population provide a market for a range of manufacturing industries (2)  
Water availability – Water transfer schemes have been initiated to supplement the need for water inland (2)  
Raw materials – An abundance of raw materials in and around the region (2)  
Transportation networks – the PWV region has well developed transportation networks linking the region to other major industrial regions (2)  
Communication Networks and infrastructure – The major communication network operators are found in Gauteng and as a result the network infrastructure is well developed (2)  
[ANY FOUR. ACCEPT OTHER LOGICAL ANSWERS] (4 x 2) (8)

**[75]**

**QUESTION 4**

- 4.1 4.1.1 Planned irregular (1)
- 4.1.2 Grid-iron/Grid/Block (1)
- 4.1.3 Easy to layout and subdivide street blocks (1)
- 4.1.4 Sizes of properties vary (1)  
More modern and aesthetically pleasing (1)  
Alleviates traffic congestion (1)  
[ANY ONE]
- 4.1.5 Most accessible area of the urban settlement (1)  
Highest land values are found in the CBD (1)  
[ANY ONE]
- 4.1.6 Land values decrease with distance from the CBD and properties grow in horizontal extent (1)  
In the CBD land values are higher, so vertical space has to be maximised (1)  
[ANY ONE]
- 4.1.7 High (1) (7 x 1) (7)
- 4.2 4.2.1 Electricity (1)
- 4.2.2  $4 + 5 = 9\%$  (1)
- 4.2.3 Tertiary (1)
- 4.2.4 Manufacturing (1)
- 4.2.5 Tertiary (1)
- 4.2.6 Developing (1)
- 4.2.7 Finance, insurance, real estate and business services (1)
- 4.2.8 Service Sector (1) (8 x 1) (8)

- 4.3 4.3.1 A settlement that provides urban goods and services to a surrounding area (1)  
[CONCEPT] (1 x 1) (1)
- 4.3.2 Trade of farm products (1) (1 x 1) (1)
- 4.3.3 The smaller the central place, the more the number of central places (2)  
**OR**  
The larger the central place, the less the number of central places (2)  
[ANY ONE] (1 x 2) (2)
- 4.3.4 High order services are more expensive and specialised (like specialist doctors) and people need to and are willing to travel further distances to take advantage or benefit from such a service (2)  
Low order services are less expensive and include everyday conveniences (like buying bread and milk), people travel short distances to access these basics (2)  
[ANY TWO] (2 x 2) (4)
- 4.3.5 (a) The higher the order of service, the higher the threshold population (2)  
**OR**  
The lower the order of service, the lower the threshold population (2)  
[ANY ONE] (1 x 2) (2)
- (b) If a high order service is established in an area with a low threshold population, the business or service will not have a large enough client or support base(2)  
It will close down or become bankrupt (2) (2 x 2) (4)
- 4.4 4.4.1 Hoyt/Sector Model (1) (1 x 1) (1)
- 4.4.2 Low income residential (1) (1 x 1) (1)
- 4.4.3 At A it is higher because the demand for land is higher (2)  
It is more accessible (2)  
Higher rentals because it has a commercial function (2)  
[ANY TWO] (2 x 2) (4)
- 4.4.4 High levels of noise(2)  
High pollution levels (2)  
[ANY ONE] (1 x 2) (2)

4.4.5 Sector

CBD is centrally located (2)

City is built on flat land (2)

Land use zones in the shape of sectors/wedges radiating from the CBD (2)

Transport systems are easily and equally accessible across the city (2)

Well defined socio-economic areas (lower; middle and higher income) (2)

South African City

Influenced by the western capitalist model of private property (2)

High land values based on preferred locations (2)

Colonial heritage has influenced many SA cities (2)

Apartheid town planning played a major role in creating segregated and unequal cities (2)

Buffer zones exist between various residential areas (2)

The location of the CBD varies; sometimes centrally located at others based on accessibility (2)

Transport routes also play a role in the development of some cities.

[ANY FOUR. MUST REFER TO BOTH] (4 x 2) (8)

- 4.5 4.5.1 G8 (1) (1 x 1) (1)
- 4.5.2 They are eating like gluttons (1)  
Huge variety and large portions of food are being consumed (1)  
More and more food is being carried in (1)  
[ANY ONE] (1 x 1) (1)
- 4.5.3 They are all rich, First World or more economically developed countries (1)  
They all come from the Global North (1)  
They have all politically strong and global leaders (1)  
[ANY TWO] (2 x 1) (2)
- 4.5.4 Poorer, less developed countries are more prone to natural hazards and disasters (like drought, floods, pests, climate change etc.) and thus grow enough food less successfully as compared to richer, more advanced nations (2)  
Some countries are politically unstable and have poor or bad governance, so cannot plan and make effective provision for food security (2)  
Large population growth in some countries threatens their food security (2)  
Economic recession puts people's jobs at risk; families are at risk to food security if household heads lose their jobs or livelihood (2)  
High prices in food increases food insecurity (2)  
Lack of energy affects food production and storage and creates the risk of food insecurity (2)  
Uncertain foreign trading environment (2)  
[ANY TWO] (2 x 2) (4)

- 4.5.5 GM Crops are said to be the solution to poor, struggling countries as  
 GM foods are more nutritious (2)  
 GM crops are more resilient to pests and climate change (2)  
 Higher yields can be attained from GM crops (2)  
 Greater varieties of food stuffs can be developed and grown as GM crops (2)  
 It is more sustainable (2)  
 [ANY THREE] (3 x 2) (6)
- 4.6 4.6.1 Decentralisation is the process whereby a government or business moves industries to locations on the periphery or to areas of economic significance, where resources and labour needs can be met (1)  
 [CONCEPT] (1 x 1) (1)
- 4.6.2 A growth point is a geographical area identified as a potential area for economic development and growth(1)  
 [CONCEPT] (1 x 1) (1)
- 4.6.3 Too many people without the appropriate skills (1)  
 Not enough employment opportunities (1)  
 [ANY ONE] (1 x 2) (2)
- 4.6.4 So that people living in the homelands could have employment opportunities (2)  
 People living in the homelands could work and live in the same place (2)  
 To stimulate economic activity/growth in the homelands (2)  
 [ANY TWO] (2 x 2) (4)
- 4.6.5 **IDZs result in economic development**  
 The government wanted to integrate races (2)  
 Industries are located more close to resources and raw materials (2)  
 Focus on supply-driven processes and outputs (2)  
 To break segregation practices of where people lived and got to work (2)  
 IDZs are designed to allow people to move around; create more access to jobs, labour mobility is freed, up etc. (2)  
 More incentives and tax benefits so as to encourage investment and economic growth and diversification (2)  
 Focus on skilling and re-skilling people, through education and training programmes (2)  
 [ANY FOUR] (4 x 2) (8)
- [75]**

**GRAND TOTAL: 225**