



NATIONAL SENIOR CERTIFICATE EXAMINATION
SUPPLEMENTARY PAPER 2014

GEOGRAPHY: PAPER I
MARKING GUIDELINES

Time: 3 hours

300 marks

These marking guidelines are prepared for use by examiners and sub-examiners, all of whom are required to attend a standardisation meeting to ensure that the guidelines are consistently interpreted and applied in the marking of candidates' scripts.

The IEB will not enter into any discussions or correspondence about any marking guidelines. It is acknowledged that there may be different views about some matters of emphasis or detail in the guidelines. It is also recognised that, without the benefit of attendance at a standardisation meeting, there may be different interpretations of the application of the marking guidelines.

SECTION A GEOGRAPHICAL ISSUES

COMPULSORY QUESTION FOR ALL CANDIDATES

QUESTION 1 GEOGRAPHICAL CASE STUDY: MCGREGOR, WESTERN CAPE

- 1.1 1.1.1 (a) SW (2)
- (b) 230° (2)
- (c) 8,8 cm : 1 760 m = 1,76 km (2)
- 1.1.2 Street/road layer (line data); location of art studios (point data). (2)
- 1.2 1.2.1 (a) X – mid-latitude cyclone, temperate cyclone, extra-tropical cyclone, frontal depression. (2)
- (b) Y – South Atlantic Anticyclone/St Helena Anticyclone (2)
- (c) Z – Coastal Low (2)
- 1.2.2 Cold front over the interior (heat equator shifts northwards); dry conditions over the interior; cool temperatures in coastal areas; SAAC and SIAC moved northwards and closer to the coast. (4)

1.2.3

	<p>I – Initial stage: cold polar easterlies meet warm tropical westerlies</p> <p>II – Developing stage: Wave forms and a LP trough starts</p> <p>III – Mature MLC: Distinct cold and warm fronts form</p>
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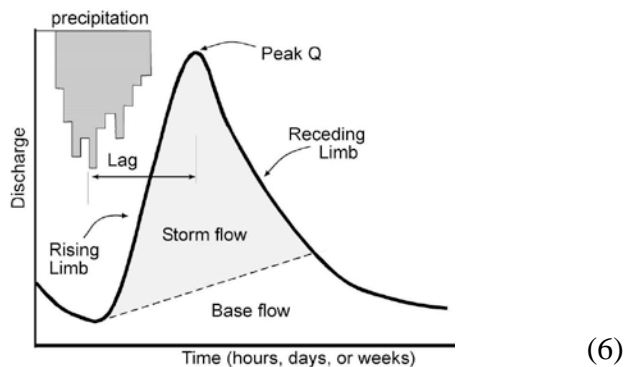
(6)

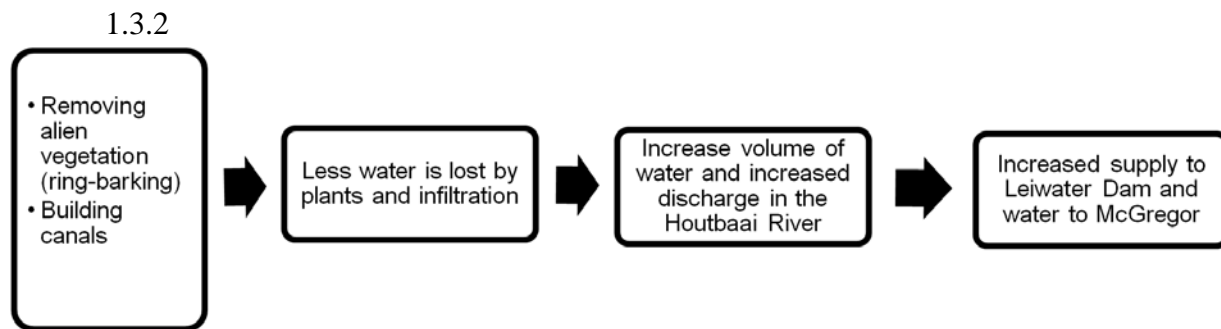
1.2.4

(a)	Air temperature (°C)	12 °C
(b)	Air pressure (hPa)	980hPa
(c)	Rainfall (mm)	1,5mm
(d)	Wind direction	NNW

(8)

- 1.3 1.3.1
- | | |
|-----|----------------|
| (a) | Receding limb |
| (b) | Storm flow |
| (c) | Lag time |
| (d) | Peak discharge |
| (e) | Rising limb |
| (f) | Base flow |





- 1.3.3 Canals acts as an aquiclude, water cannot infiltrate ground water, more loss to evaporation. (8)
- 1.4 1.4.1 • Availability of drinking water (Houtbaai River) (2)
- Arable land and good soil fertility (4)
- Gradient suitable for cultivation and good drainage (2)
- 1.4.2 Village: Small population of 10 500 (2)
- 1.4.3 Gridiron (2)
- 1.4.4 Like activities attract like activities such as artist galleries attracting other art galleries. Although competitors are nearby businesses; have the advantage of sharing customers. (4)
- 1.4.5 (a) Counter urbanisation: is a demographic and social process whereby people move from urban areas to rural areas. (2)
- (b) Essay:
- Factors causing rural depopulation**
- Push factors: Declining soil fertility; lack of jobs; human-made disasters and natural disasters (floods, droughts); poor services (education, health).
 - Pull factors: More job opportunities; more entertainment, education and better health services.
- Examples of sustainable strategies to promote 'counter urbanisation'**
- Extended Public Works Programme can create more employment opportunities in rural areas for unskilled labourers.
 - Agenda 21/MDGs providing basic needs to people, dealing with gender issues.
 - RDP, ISRDP (Integrated Sustainable Rural Dev Program) and NGOs.
 - Country towns marketing eco-tourism activities, hiking, rafting, 4x4ing.
 - Other festivals such as music, wine, cheese, literary, garden festivals to encourage people to stay.
 - Creating more employment opportunities by diversifying from only farming; B&Bs and wedding venues.
 - Telecommuters residing in rural settlements if Internet coverage is good.
 - Addressing HIV/AIDS, improving health clinics.
- Evaluation of sustainable strategies**
- Credit given for examples and critical evaluation, both advantages and disadvantages given, e.g. only some people benefit, not necessarily the impoverished.

2 marks awarded for using sub headings and evidence of structure and planning. (16)

- 1.5 1.5.1 (a) Gross Domestic Product: refers to the market value of all officially recognised final goods and services produced within a country in a given period. (2)
- (b) Beneficiation: Transformation of a mineral or raw material to a higher value product. (2)
- 1.5.2 (a) Agriculture – primary activity
- (b) Tourism – tertiary activity (4)
- 1.5.3 Wine farms attract tourism with wine tastings, pairing with foods, restaurants, providing accommodation on wine farms, conference venues. (6)
- 1.5.4 Natural disasters (floods and drought, global warming); fires; International (European) markets crashing. (4)
- 1.5.5 If the value of the Rand increases, international demand will decrease and sales may decline which will negatively impact on the industry's contribution to the GDP and vice versa. (4)

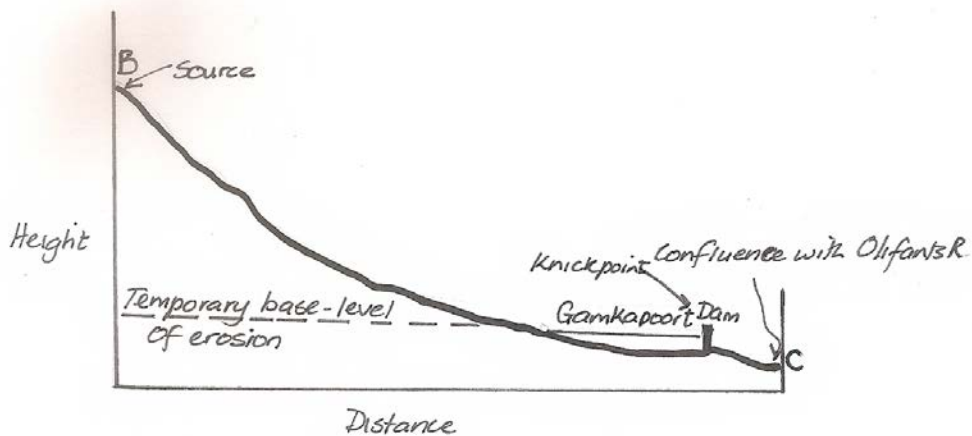
100 marks

SECTION B NATURAL ENVIRONMENTS

Answer ONE question from this section.

QUESTION 2 SYNOPTIC WEATHER MAP, FLUVIAL GEOMORPHOLOGY, RIVER CAPTURE, LANDFORMS AND URBAN CLIMATE

- 2.1 2.1.1 (a) A – South Indian High/Mauritius High
 B – coastal low
 C – cold front (6)
- 2.1.2 Within the next 48 hours the cold front would have passed over Cape Town. The weather will change to overcast, cold conditions with rain occurring. The winds will back to the NW – these bring the rain and cold air following after the front (4)
- 2.1.3 (a) The Cape Doctor (2)
 (b) 29 °C (2)
- 2.1.4 (a) These strong gradient winds will be drawn in from the high pressure system over the southern Cape coast. They usually force weather to clear when they are blowing. (2)
 (b) Speed – depends on whether a head or tail wind. Riding into the wind will slow down the pace and make pedaling difficult. With the tail wind, it will be easier to pedal with the wind behind one and then the cyclist is able to go faster. Direction of the wind is important as this will indicate cross-winds and shears to avoid – throws cyclists off balance. (4)
- 2.2 2.2.1 (a) Stream order of the Gamka River at A – 3rd order. (4)
 (b) A fully labelled longitudinal profile from B to C. (4)



(c)

Aspect	Gamka	Eastern Southern Cape
• Size	Large area	Small, narrow area
• Shape	Typical inverted pear shape (tree-shaped)	Elongated
• Drainage density	Medium	Low (few rivers)

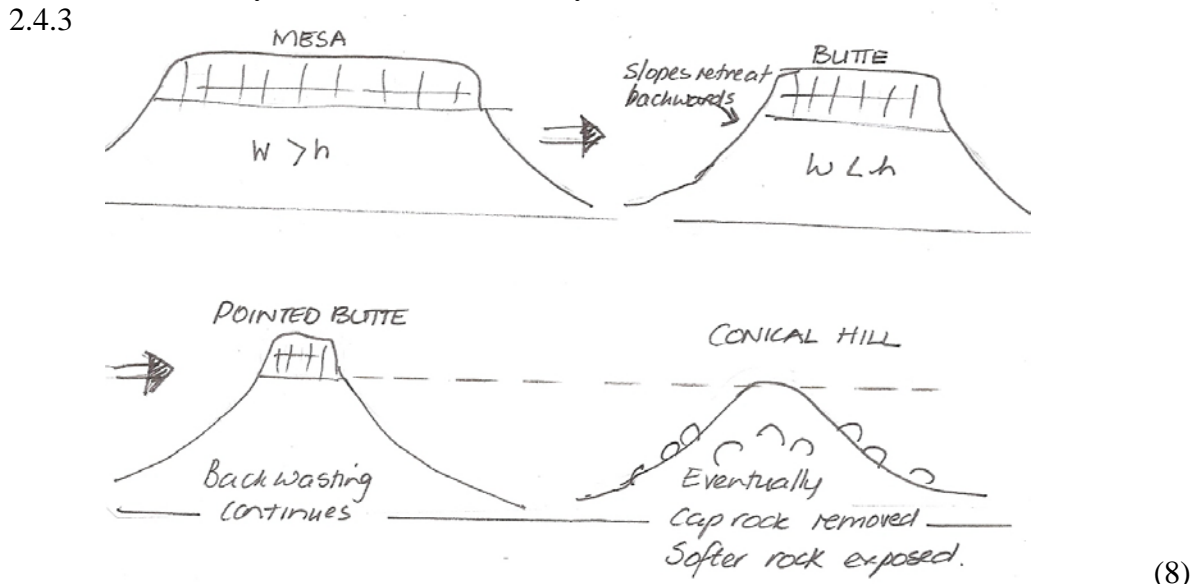
(6)

(6)

- (d) Hydrograph E: A long, narrow basin
 - This basin yields a more even runoff.
 - The water of the furthest tributaries will take much longer to reach the point of outflow than the water of the closer tributaries.
 - The peak flow is more evenly spaced.

- 2.3 2.3.1 Dendritic pattern. (2)
- 2.3.2 (a) Headward or backward erosion (2)
- (b) Poort or watergap (2)
- (c)
 - More rainfall on the seaward slopes and coast than in the interior the original Gouritz River was at a lower altitude to the Gamka and Dwyka River basins.
 - Softer rock easier to erode into.
 - Tectonic uplift – which is evident in the diagrams (drop in sea level – changing the permanent base level of erosion and causing rejuvenation of the Gouritz River.)
- Any 2 factors (4)
- 2.3.3 (a) Antecedent drainage. (2)
- (b)
 - The river develops its course on a former landscape.
 - The river was able to erode fast enough to keep pace with the uplifting landscape.
 - The stream is able to erode through the folded structures or resistant rocks.
 - Rivers maintain their original course by cutting a poort, or gap, through the newly folded mountain.

- 2.4 2.4.1 Mesa (2)
- 2.4.2 Width of the landform greater than the height. (4)
- Resistant layer of rock (horizontal layer). (4)



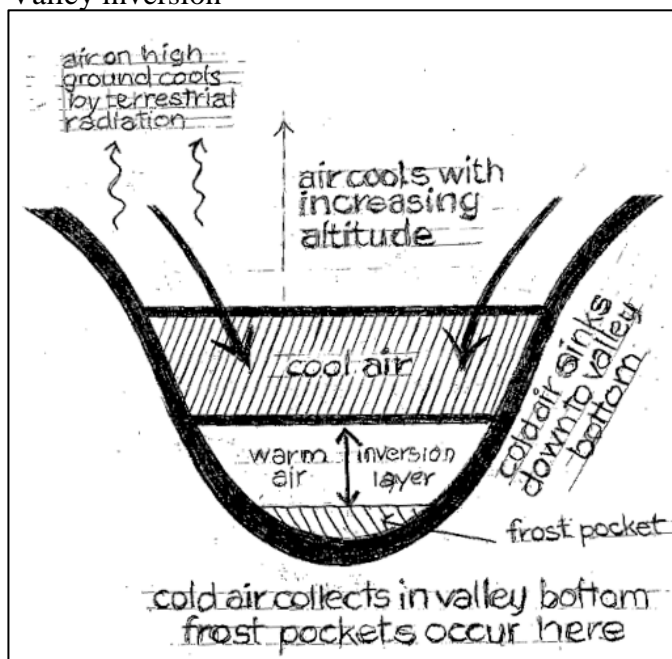
- 2.4.4
 - Erosion and weathering of the cliff face of the caprock
 - Expansion and contraction along joint lines
 - Boulders/rocks eventually break off
 - Fall to top of the talus slope
 - Debris may also be moved over the crest by soil creep
 - Boulders and rocks (debris) moved down slope by soil creep (under the influence of gravity)

- 2.5 2.5.1 Urban heat island (2)
- 2.5.2 (a) Along river course and along the coastline (4)
- (b) Long, elongated restricted by the river and coastline lies parallel to the sea (4)
- 2.5.3 • Buildings absorb heat during the day and radiate the heat at night – thus raising the temperatures
- Pavements, tarmac surfaces give off heat at night
- Any other suitable explanation (4)
- 2.5.4 **Traffic congestion**
- Alleviate congestion by implementing:
- Multilevel transport layers
 - Public transport – trains
 - Pedestrian walkways across roads
 - 1-way traffic flow
- Water-canal**
- Cooling effect of water
 - Hygroscopic nuclei – absorbs heat and more clouds form – more rainfall – cooling
 - Cleaner air from more rainfall
- Trees and vegetation**
- Trees lining streets
 - Absorb heat (also carbon dioxide)
- Roof-top gardens**
- Help with heat balance
- Any 4 problems solved (4 × 2) + 2 for mind map structure (10)
- [100]**

QUESTION 3 CLIMATE AND WEATHER, FLUVIAL PROCESSES AND LANDFORMS

- 3.1
- | | |
|---|---|
| 1 | G |
| 2 | K |
| 3 | D |
| 4 | H |
| 5 | L |
| 6 | E |
| 7 | B |
| 8 | C |
- 3.2 3.2.1 (a) 12 Typhoons. (2)
- (b) Typhoon Megi is located in Asia, Pacific Ocean. Hurricanes are located in the Atlantic Ocean. (2)
- 3.2.2 Typhoons move from E to W and then veer polewards. Typhoon Megi moves polewards once it has passed over the Philippines, as it is slowed down due to friction. (4)
- 3.2.3 • Warm sea surface temperatures of (27 °C and hotter).
- No friction to slow the weather system down.
 - Upper air divergence. (4)

- 3.2.4
 - Low pressure at the centre of the system, below 990 hPa.
 - Wind speeds in excess of 300 km/h.
 - Eye clearly defined, band of clouds in the NH spiralling anti-clockwise.
 - Worst weather in the dangerous quadrant, in this case the NW quadrant.
 - Size larger than 500 km in diameter. (6)
- 3.2.5 Megi had reached the cooler waters of the S China sea so there was less evaporation and consequently less latent heat to drive uplift; Megi has started to dissipate as it moved over the Philippines due to friction. (4)
- 3.2.6
 - Effective disaster management systems in place.
 - Warning systems, satellite tracking.
 - Evacuation, education and emergency procedures in place. (6)
- 3.3 3.3.1 Valley inversion (2)
- 3.3.2



- 3.3.3 Katabatic/Mountain winds. (8)
- 3.3.4 Insolation is greater so Earth's surface heats up in the day and retains its heat so there is less loss of terrestrial radiation at night. Air is therefore not cooled down and katabatic winds are less likely to occur. Cloud cover is more likely over the interior, which traps LW radiation so therefore air is not cooled down. (2)

3.4 3.4.1 Tors (2)

3.4.2

(a)	F
(b)	T
(c)	F
(d)	F

(8)

3.5 3.5.1

A	B	C
<ul style="list-style-type: none"> • Interlocking spurs • Steep gradient • Turbulent flow • Waterfalls, rapids common • V-shaped valley 	<ul style="list-style-type: none"> • U-shaped valley • River starts to meander • Narrow flood plain 	<ul style="list-style-type: none"> • Wide flood plain • Increased meandering, oxbow lakes may occur • Laminar flow • Greatest discharge

(6)

3.5.2 River course C (2)

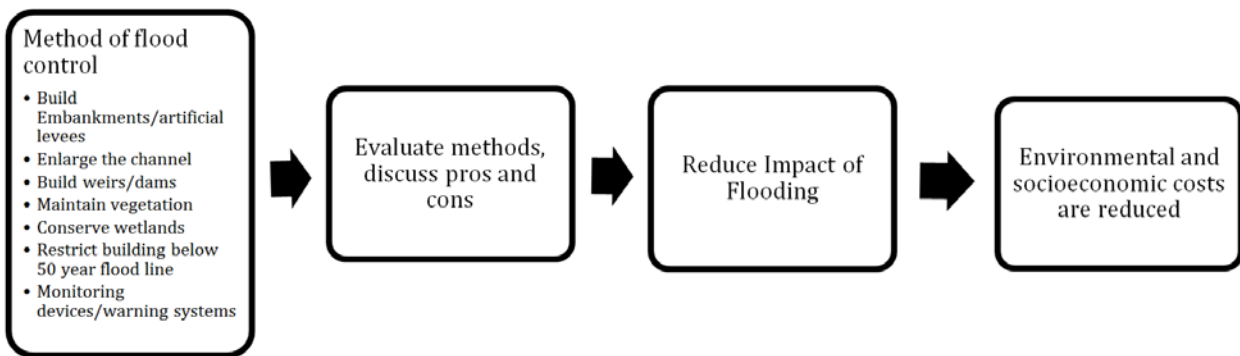
3.5.3 Valley wide U shaped and river reached over bankfull earlier, levees breached and flooding may occur. (4)

- 3.5.4
- Helps soil fertility when alluvium is deposited on the floodplain.
 - Excess salts are washed away and dissolved which is essential for plants.
 - Certain plants, wading birds, insects and animals benefit. (4)

3.5.5 Allocation of marks:

Methods of flood control discussed	(4)
Methods evaluated	(4)
Flow diagram format	(2)
Environmental and socioeconomic costs	(4)

Possible answer:



4)
[100]

100 marks

SECTION C HUMAN ENVIRONMENTS

QUESTION 4 PEOPLE AND PLACES, PEOPLE AND THEIR NEEDS

- 4.1 4.1.1 Decentralisation J
- 4.1 4.1.2 Sphere of influence D
- 4.1 4.1.3 Façadism F
- 4.1 4.1.4 Central place G
- 4.1 4.1.5 Threshold population C
- 4.1 4.1.6 Invasion and succession I
- 4.1 4.1.7 Rural-urban fringe A
- 4.1 4.1.8 Urban expansion L
- 4.1 4.1.9 Light industry B
- 4.1 4.1.10 Urban decay H (20)

- 4.2 4.2.1 A – dispersed rural settlement (4)
- 4.2 4.2.1 B – nucleated rural settlement (4)

4.2.2 (a)

Aspect	Settlement A	Settlement B
Site	Wetpoint; close to streams; on NE facing slopes	Drypoint; top of the hill where it is flat
Situation	Isolated, not near transport routes	Close to R61

(8)

(b) **Factors favouring subsistence farming**

- Hilly area, thus easier to farm on a small scale
- Communal farming

Advantages of this type of farming

- Food for the family; mixed farming; rain-fed farming

Disadvantages of this type of farming

- No excess and therefore cash cropping; can lead to starvation if there is a drought
 - No money for good seeds which may be resistant to disease
- Any suitable description (6)

- (c) Yes, they farm crops, with animals – chickens and goats; they also use the fruit from indigenous plants, e.g. bananas and pawpaws (4)

- 4.2.3 • Banking (4)
- Postal and business communication, e.g. faxes; hospital; police station; garage; clothing (4)

- 4.2.4 (a) • People don't have to travel long distances to Flagstaff or Lusikisiki for basic medical care. (4)
- The area is densely populated with poor service delivery of basic needs. (4)
- HIV/AIDS, TB and cholera are common. (4)

- (b) • Cost of building, equipping and maintaining clinic with little or no patient contributions. (4)
- Local residents may not see the need for the clinic – may prefer traditional healing methods. (4)
- Staffing of clinic may be difficult and qualified staff may not be available. (4)
- Getting reliable sources of medicines for the clinic (regular supply). (4)

- (c)
 - Internship – community service for newly qualified nurses and doctors
 - NGO involvement in obtaining regular supply of medicines
 - NGO involved in building the clinic;
 - Run education sessions/provide material on family planning; importance of good nutrition, etc. (4 × 2 = 8)

- 4.3 4.3.1 (a)
 - Lack of space for further development
 - Old airport had reached capacity
 - Runway too short
 - Surrounded by petrochemical industry – not safe

Any 3 factors (6)
- (b)
 - Good transport systems in place – freeway; airport and close to Durban
 - Good labour supply
 - Water and flat land for development
 - Creates a ripple effect or functional magnetism – plenty of space for development
 - Easy for exporting and importing (6)
- 4.3.2 Ideally they should, but very few have been employed. Hothouse produce requires skilled workers who can work computerised systems. Local farmers produced may not be what the EU is looking for – therefore not market for the local farmers. (4)

- 4.4 4.4.1 A water transfer scheme involves the transfer of water from one catchment area to another where a shortage may be experienced. (2)
- 4.4.2
 - Fix failing municipal water systems
 - Fix water leaking from taps and valves
 - Limit amount used; introduce restrictions
 - Fine users for excessive use – over the limits
 - Regulate watering gardens, etc.

Any suitable strategy (8)
- 4.4.3 Water is illegally siphoned off by mining operations and irrigation – all users must have permits and limits
 Monitor illegal use and clamp down – fines
 Any suitable recommendation (8)
- 4.4.4
 - More revenue on a monthly basis from South Africa
 - More infrastructure development, e.g. roads for access to the Polihali dam
 - More access to bigger centres for the locals
 - More services and shops needed so locals can increase their turnover
 - Could mean water and electricity to the locals (4)

[100]

QUESTION 5 PEOPLE AND PLACES: RURAL AND URBAN SETTLEMENTS, PEOPLE AND THEIR NEEDS: PRIMARY ACTIVITIES, MANUFACTURING REGIONS AND FOREIGN TRADE

- 5.1 5.1.1 B
- 5.1.2 D
- 5.1.3 A
- 5.1.4 C
- 5.1.5 B (10)

5.2 5.2.1 **Size:** small isolated farmstead (some outbuildings evident) (4)
Pattern: isolated/dispersed/scattered

- 5.2.2 • Availability of drinking water
- Closeness of arable land
- Pasturage for livestock
- Suitable gentle gradient for cultivation and drainage
- Good soil fertility (4)

5.2.3 Commercial (2)

5.2.4 (a) Monoculture is the agricultural practice of producing or growing a single crop or plant species over a wide area and for a large number of consecutive years. (2)

- (b) Advantage: Farmers can specialise, resources used to full advantage, ease of crop management, more money for seed companies.
- Disadvantage: Large economic loss if single crop price drops or destroyed by drought, pests, etc. loss of biodiversity. (4)

5.3 5.3.1 Informal trading/street trading/hawking (2)

Advantages	Disadvantages
No rent, attracts tourist where crafts are sold, easily, can create a lively market flavor, reduced prices for the consumer, little start up costs.	No tax revenue for country, no protection from trade unions, pedestrian congestion, loss of shop frontage for paying tenants, lack of health and quality assurance. (8)

5.3.3 Essay must compare and contrast before and after renewal projects:

- Factors that lead to urban decay**
- Urban disinvestment – urban decay cycle, edge cities and suburbs attract companies to relocate, employers leave, unemployment, crime, xenophobia, rents and services not paid, landlords neglect buildings, urban blight, e.g. drug lords invading Hillbrow (JHB).
 - Pollution (air, noise and water).
 - Housing shortages with the influx of people moving in from rural areas.
 - Congestion, poor public transport, declining quality of road surfaces.
- City improvements projects**
- *Precincts* such as Newtown, Constitution Hill, Rosebank Commuter Zone
 - *Multiplier effect* of urban renewal as people are employed, crime and grime are reduced.
 - Opening up the city by urban designers for recreation and play, parks e.g. Green Point Park (CT), new Art Zone at Joubert Park (JHB).
 - *Chicago Model*, mixed land use, work and live in the city.

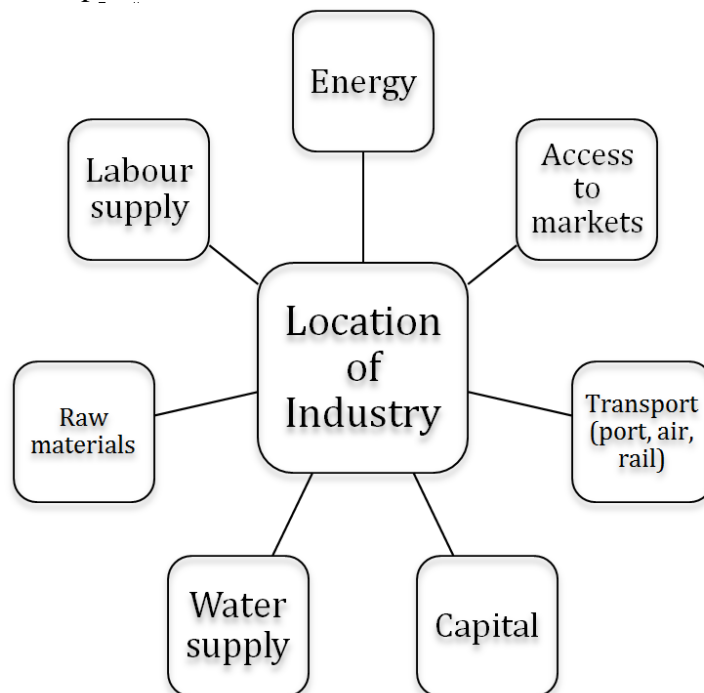
Agenda 21 principles and urban renewal (now falls under the MDGs)

- Providing adequate shelter for all
- Improving human management
- Promoting sustainable land-use and management
- Promote sustainable energy use and transport systems (public transport, e.g. Gautrain)
- Sustainable building construction
- Human resource development
- Promote an integrated urban environment infrastructure (water, sanitation, drainage, waste management)

(Give credit for mention of examples)

2 marks awarded for using sub headings and evidence of structure and planning

- 5.4 5.4.1 eThekweni Metropole (Durban-Pinetown); Tshwane-Witwatersrand-Vaal complex (Gauteng); Cape Peninsula-Bellville region (SW Cape); Maputo Development corridor; Richards Bay (16)
- 5.4.2 An IDZ is a purpose built, industrial estate linked to an international air or sea port, which might contain one or multiple Customs Controlled Areas (CCA) tailored for manufacturing and storage of goods to boost beneficiation, investment, economic growth and, most importantly, the development of skills and employment in these regions. (4)
- 5.4.3 Mind map: ... (2)



- 5.4.4 Attraction of capital and foreign investment, good infrastructure (new enlarged deep sea Port of Ngqura), multiplier effect of being near other industries (functional magnetism), growth of link industries, supply of semi skilled labour in neighbouring Nelson Mandela Metropole. (10)
- 5.4.5 New industries to the Coega IDZ will provide employment opportunities, foreign investment into manufacturing (car manufacturing) will provide new skills to the labour force, new improved port facilities (deep-draught ships) will attract more investment and more employment opportunities. (6)
- 5.5 5.5.1 (a) Emerging economies are rapidly growing and volatile economies. They promise huge potential for growth but also pose significant political, monetary and social risks. They are economies with low to middle per capita income. (6)
- (2)

- (b) **Global economy** is the international spread of capitalism and free trade, especially in recent decades, across national boundaries and with minimal restrictions by governments. The process by which countries' economies become increasingly interwoven and affected by each other. (2)
- 5.5.2 An income greater than \$6 000 per annum. (2)
- 5.5.3 South Africa's population is at 50 m and it would not feature on the graph. Population of people earning above \$6 000 is too low to be graphed at this vertical scale. (4)
- 5.5.4 (a) Balance of 'payments' is the difference between the value of a country's visible exports and its visible imports. Balance of trade = value of exports – value of imports. (2)
- (b) SA will have improved trading relations with other members of BRICS and improved markets; improved exports; more foreign exchange; our primary (raw materials) and secondary sectors will benefit; exchange of skills (development of the quaternary sector); improved funding opportunities from banks (Bank of China); beneficiation opportunities; be able to compete globally. These valuable sources of income and expenditure will benefit our balance of trade. (8)

[100]

100 marks

Total: 300 marks