



NATIONAL SENIOR CERTIFICATE EXAMINATION
SUPPLEMENTARY EXAMINATION – MARCH 2019

**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

QUESTION 1 GEOGRAPHY OF COLESBERG, NORTHERN CAPE

1.1 Geographical and map interpretation skills

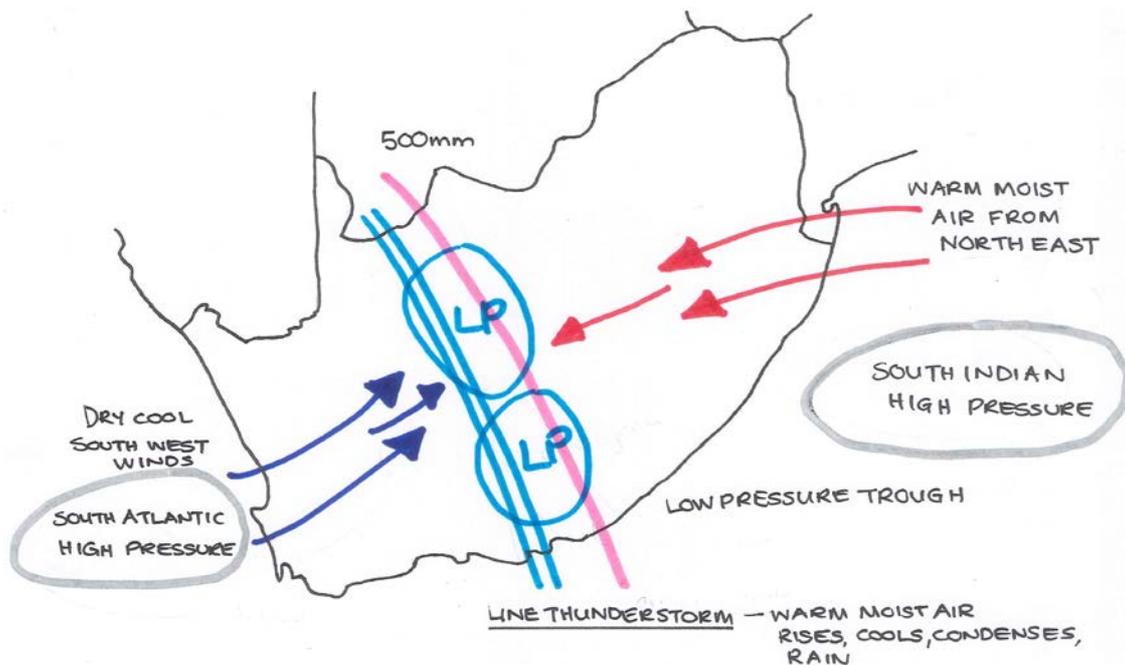
	True	False
1.1.1		X
1.1.2	x	
1.1.3		x

1.2 Climate and weather – line thunderstorms

1.2.1 Choose the correct word.

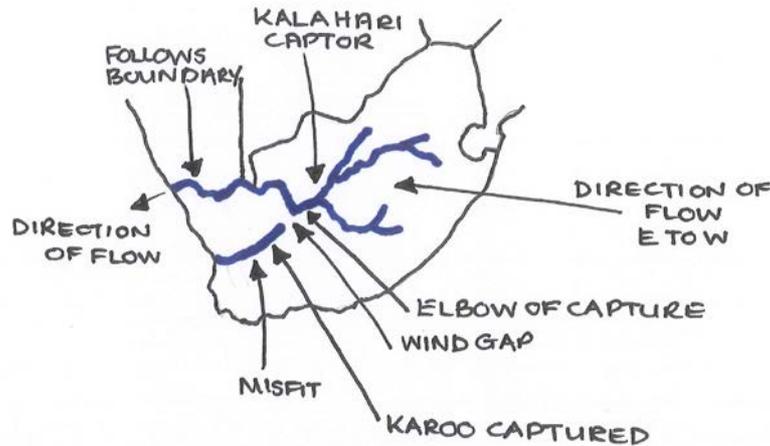
- (a) 392 mm
- (b) Summer
- (c) 21,6° C
- (d) 19,3° C

1.2.2 Line thunderstorms – on Answer Sheet



1.3 Fluvial process – river capture

1.3.1 (a) Annotated sketch of river capture



(b) River capture took place because:

- Captor river is more energetic due to gaining water leads to headward erosion, which cuts back & intercepts other river.
- Leads to captured river being diverted. And/or misfit stream that has lost its water source; loses water; has less energy; deposits much of its load.

1.3.2 Orange/Gariep River

1.4 Settlement – situation, settlement patterns, economic activities and GIS

1.4.1 The situation of Colesberg is:

- Surrounded by koppies / small hills
- Northern Cape
- Karoo veld
- N1 highway from CT to Jhb.

Anyone

1.4.2 Settlement pattern is linear.

1.4.3 Land use at:

X = Quarry or dam / Water storage

Y = Recreation

Z = Residential Housing (If warehouses are identified and the land use is stated as commercial, this will also be accepted)

1.4.4 Buffer zone would be the koppies, high land, or small hills between Settlement A and Settlement B.

1.4.5 Value-added product (not wool) from merino sheep = textiles (clothing)

1.4.6 Compare and contrast service delivery between Settlements A and B.

Colesberg A	Settlement B
More services, e.g.: <ul style="list-style-type: none"> • Better water and sanitation • Electricity • Police services • Schools • Hospitals and clinics • Transport 	Fewer services, e.g.: <ul style="list-style-type: none"> • Less water and sanitation • Electricity • Police services • Schools • Hospitals and clinics • Transport
[Any 3 × 1]	[Any 3 × 1]

- 1.4.7 (a) Raster
- (b) Line / vector

1.5 **Settlement concepts**

1.5.1 Invasion and succession

1.5.2 Reason for change in land use is no longer economically viable.
 Other buildings have also changed.
 Concept

- 1.5.3 Ways to reduce rural depopulation: [Any 3 × 2]
- Government introduced rural development strategies and programmes
 - Upgrade current housing
 - Reduce unemployment through diversification
 - Different kinds of farming activities
 - Introduce sustainable services
 - Arts and culture – craft making – manufacture and sale
 - Adventure tourism
 - New ruralism
 - Bed & breakfasts / conference / wedding venues
 - Ecotourism
 - Skills training in local craft

1.6 Economic geography

1.6.1 Astro-tourism is tourism related to watching night skies / stars
[concept]

1.6.2 Tertiary

1.6.3 Colesberg would be ideal because it:

- has no light pollution
- has very few high mountains to obstruct views
- is not built up
- is in a desert / dry environment karoo veld [Any 3 × 2]

1.7 Food security

1.7.1 Food security means that the food supply is sufficient to support people's daily needs.

1.7.2 $57\,000\,000 \div 6 = 9\,500\,000$ are food insecure every day

1.7.3 South Africans experience food insecurity due to:

- increasing food prices
- drought / global warming & climate change / El Niño
- lack of finance to invest in fertilisers, pesticides may reduce agricultural production
- land degradation
- farming on marginal areas decreases productivity
- high population growth
- land reform – people may not have necessary skills [Any 3 × 2]

1.7.4 Solutions to ensure food security:

- Promote sustainable / eco-agriculture and training.
- Regulate food prices and provide safety nets for the impoverished.
- Provide biofuels that do not compete for water resources.
- Sow drought-resistant seeds.
- Provide alternative animal feed so land can be used for food crops.
- Promote and finance small-scale farmers.
- Promote urban food farms.
- Improve drought management.
- Increase provision of water and infrastructure to trade and markets. [Any 4 × 2]

SECTION B CLIMATE, WEATHER AND GEOMORPHOLOGY**QUESTION 2 CLIMATE****2.1 Climate terminology**

2.1.1	F
2.1.2	G
2.1.3	D
2.1.4	C
2.1.5	E

2.2 Tropical cyclones

2.2.1 (a) Hurricane timeline table: (on Answer Sheet)

- (i) Tropical storm
- (ii) August
- (iii) Gert
- (iv) Lee [each point 1 mark]

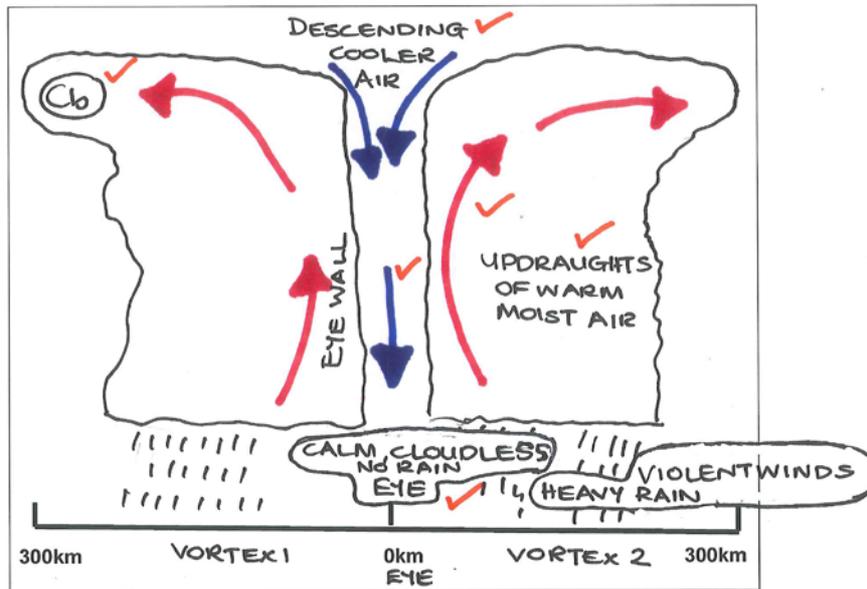
- (b) So few hurricanes made headlines:
- not strong enough
 - would not affect populated areas

2.2.2 (a) Northern hemisphere

- (b) Evidence:
- clear anticlockwise circulation
 - North American East Coast boundary lines

2.2.3 Tropical storm – has wind speeds of 63–117 km/h and could develop into a hurricane; no eye yet
Hurricanes – much faster winds and torrential rain, classified in categories based on wind speed
[Concept of different strength and damage]

2.2.4 Cross-section of a hurricane – on Answer Sheet



2.2.5 Hurricane Maria caused less damage despite being stronger because:

- it was only stronger in wind speed
 - less rainfall (approx. 12" vs 51" with Harvey) so less flooding
 - smaller storm surge so damage to coastal areas less
 - hurricane Maria affected a less densely populated area
- [Any 3 x 2]

2.3 Mid-latitude cyclones

2.3.1 Choose the correct underlined term or terms in each of the following sentences.

- (a) family
- (b) South Atlantic High
- (c) 1016 mb
- (d) backing
- (e) trough

2.3.2 Symbol is an occlusion

2.3.3 Occlusion occurs when:

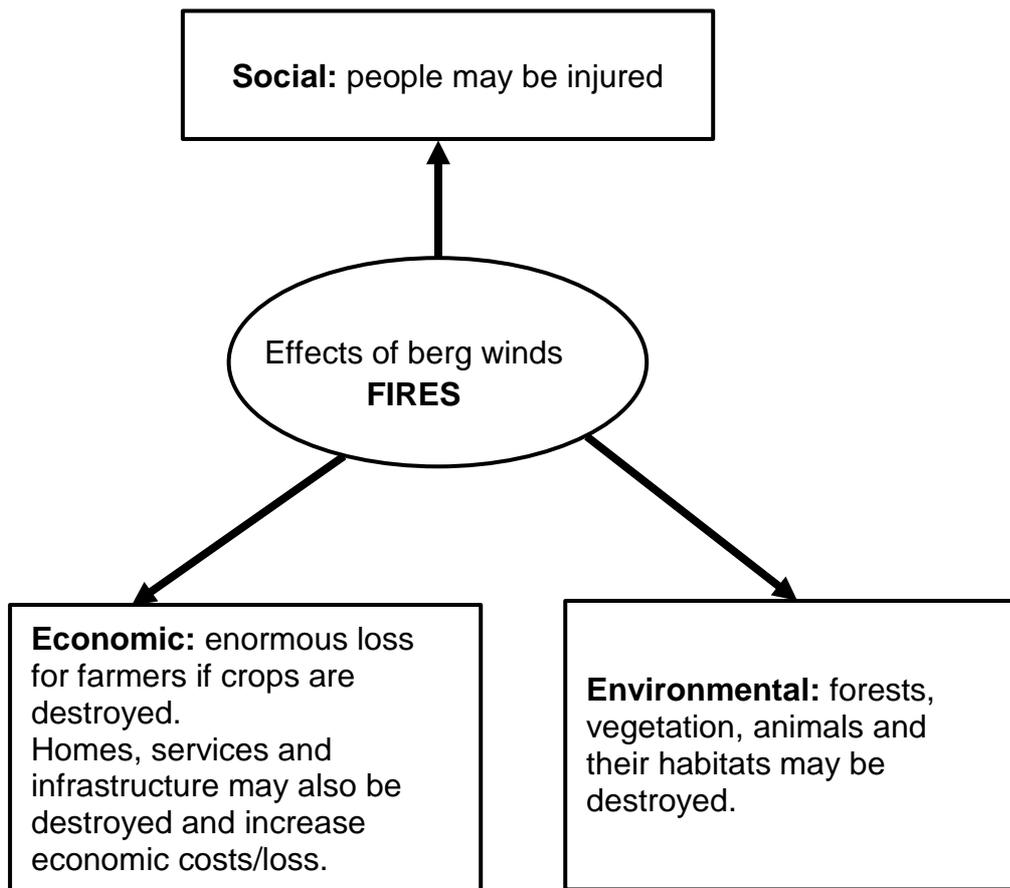
- The cold front travels faster than the warm air in the warm sector, and so catches up with the warm front along most of its length.
- The warm air is forced to rise, leaving only a very small warm sector on the ground.
- The cold and warm fronts are joined.

2.4 **Berg winds**

2.4.1 Berg winds form:

- HP over interior causes air to subside due to pressure gradient between HP (interior) and LP on the coast.
- This air heats up adiabatically as it moves down the escarpment towards the sea.
- All moisture is thus evaporated and so warm, dry wind

2.4.2 Effects of berg winds: [any 3 relevant effects x 2, do not have to follow the social, environmental and economic headings] On Answer Sheet.



2.5 Fluvial geomorphology

The following statements are true or false. **Select** the correct option.

		True	False
(a)	Buccleuch lies at the confluence of the Modderfontein Stream and the Jukskei River.	x	
(b)	The Crocodile River is a tributary of the Jukskei River.		x
(c)	The discharge would be greater in Bruma than in Kyalami.		x
(d)	The long profile of the Jukskei River would be ungraded.	x	
(e)	The drainage pattern of the Jukskei River is dendritic.	x	
(f)	Throughout its course, the Jukskei River maintains a turbulent flow.		x

2.6 Catchment and river management

2.6.1 Hydrograph A

2.6.2 Reasons for choosing Hydrograph A:

- higher peak flow
- shorter lag time
- sharper rising limb

2.6.3 Urban flooding due to:

- storm-water drains may be blocked or insufficient
 - high amount of concrete / artificial surfaces
 - high amount of informal settlements on riverbanks
- [any 2 × 2 relevant point]

2.6.4 Water management solutions:

- manage and control the number of settlements built close to riverbanks
 - maintain storm-water drains
 - increase and maintain vegetation on river banks
 - construction of weirs, channels or dams to control/divert flow of water
 - construction of artificial levees
 - sustainable role of industries
- [any 3 × 2]

100 marks

SECTION C RURAL AND URBAN SETTLEMENT AND ECONOMIC GEOGRAPHY OF SOUTH AFRICA

QUESTION 3

3.1 Rural settlements

3.1.1 (a) Nucleated

(b) Reason: buildings clustered close together

3.1.2 Advantages of nucleated settlements:

- help is available
- farmers can share tools
- share ideas and socialise
- family close by

[Any 3 reasonable advantages × 2]

3.1.3 Problems faced by the people in this settlement:

- far from other built-up areas – few services: hospitals, water, electricity
- have to travel far to attend school (if available)
- have to go long distances to buy supplies or to trade / markets

[Any 2 reasonable problems × 2]

3.2 Urban settlements – Kliptown, Soweto

3.2.1 Urban renewal (gentrification)

3.2.2 Urban renewal necessary due to:

- This site was the original site where leaders called for democracy and commitment to a non-racial South Africa. Renamed Walter Sisulu Square of Dedication in 2002 and was declared a World Heritage Site in 2005. As a World Heritage Site and a very old settlement, it needed to be upgraded.
- Original site was an informal settlement
- Suffering from urban blight and decay
- Rundown and neglected
- Few services and infrastructure available

[Any 2 reasonable explanations × 2]

3.2.3 Benefits for the community:

- Historical tourism site & Visitors' Centre – guides
- Uplift community
- Better living conditions
- Museum – guides
- Soweto Hotel – jobs
- Roads upgraded (K43 extending from Kliptown into Soweto)

- Sewer system upgraded
 - Klipspruit was cleaned up and wetland rehabilitated
 - Environmental education and programmes to encourage making and selling of crafts
 - Traders' market established & more hygienic areas to clean and prepare food
 - Taxi rank built
 - Housing complex north of the square
- [Any 3 × 2]

3.2.4 TWO other upgrade projects in Gauteng

- Blue IQ
 - Times Square
 - Menlyn
 - Maboneng
 - UDZ – Urban Development Zone (Joburg CBD including Market Theatre, Museum Africa)
 - Braamfontein – Neighbourgood’s Market
 - O R Tambo (IDZ)
 - Alexandra renewal project
 - Hatfield Urban Renewal Project
 - Newtown
- [Any 2 × 2]

3.2.5 Reasons why urban renewal projects could fail:

- misappropriation of funds
 - tenders awarded to firms not experienced or equipped with skills to complete the job
 - poor quality materials may be used and buildings become rundown very quickly
 - no buy-in from the community
 - perceived as adversity
 - lack of funds
- [Any 3 × 2]

3.3 Central-place theory and economic sectors

Complete the table, by **ticking** the correct column – on Answer Sheet

		<u>Tick</u>		<u>Tick</u>		<u>Tick</u>	
(a)	Function	Low order	X	Medium order		High order	
(b)	Range	Small	X	Medium		Large	
(c)	Sphere of Influence	Small	X	Medium		Large	
(d)	Economic Sector	Primary		Secondary		Tertiary	X

3.4 Gauteng – Johannesburg: urban settlement issues

3.4.1 Agripreneur – a person who is an entrepreneur / businessperson with or in agriculture / farming.

3.4.2 Intensive

3.4.3 Benefits for the inner-city community

- jobs
- skills learnt by farming intensively and running a small business
- fresh food available daily – can sell and feed families
- cost effective – little transport cost and small area
- rooftops are maintained and looked after
- provides inner city with "green lungs"

[Any 4 × 2]

3.4.4 Advantage of rooftop farms:

- less space is needed
- transport costs reduced
- fewer carbon miles, reduced emissions in the city
- no soil erosion or pest-control costs
- many use rain harvesting or grey water so demand for water is not as severe as for large-scale farms
- hydroponics/aquaponics enable farmers to produce crops much faster than traditional soil-planted crops

[Any 2 × 2]

3.4.5 TWO other "green" projects in Gauteng:

- Rosebank Mall – vertical garden
- Green Star-rated buildings – Discovery and Nedbank buildings in Sandton
- Allendale public transport facility
- BMW HQ in Midrand
- Google Johannesburg
- STATS SA, Pretoria
- Gauteng

[Any 2 × 2]

3.5 Economic activities: mining – diamonds

3.5.1 2017

3.5.2 $11\,300\,000 \times R1263,00 = 1\,427\,190\,000$

Accept from 11,2 million–11,4 million

Range: R1 414 560 000–R1 439 820 000

3.5.3 **Kimberlite diamonds** – Magma-carried rock fragments and mineral components from the mantle to the crust, forming kimberlite dykes or carrot-shaped kimberlite pipes. Accept formed in the Earth's crust in vertical structures.

Alluvial diamonds – found in riverbeds and river terraces

3.5.4 Few marine diamonds as extracting diamonds from ocean floor is laborious and expensive / not that many in SA. [1 × 2]

3.5.5 **Industrial diamonds:** due to inferior quality and/or undesirable colour are used in industry as cutting tools, abrasives and as grinding powder or paste.

Gem diamonds: classified as rough and polished mainly for sale/jewellery.

3.5.6 Linked industries:

- borehole drill bits
- grinding media
- high-speed cutting blades
- windows in laser tools
- heat sinks
- speaker domes

[Any 2 × 1]

3.5.7 Diamonds sorted and cut in Gauteng:

- safety and security of building
- Gauteng is economic hub and high tech
- easy access to airports for transportation

[Any 2 × 2]

3.5.8 Compile a report of 1 to 1½ pages where you:

- **Describe** how diamonds are classified.
 - classified according to 4Cs – clarity, colour, carats and cut-ability (cut).
 - also have fifth C, confidence in terms of the source being considered as per Kimberley Process Certification Scheme (KPCS).
- **Suggest** how beneficiation of diamonds can boost a country's economy.
 - Beneficiation adds value to products before being exported. Rough diamonds are converted into manufactured products.
 - Country will lose money if they export rough diamonds.
 - Local economy is negatively affected as fewer jobs.
 - Exported gem and industrial diamonds that are beneficiated lead to economic growth and increased foreign exchange.
 - Beneficiation increases job creation and skills development and training in skilled and semi-skilled sectors leading to an improved standard of living.
 - Leads to development of more forward and backward link industries thus promoting the growth of the secondary sector in a country.
 - Selling a finished product also promotes the growth in the tertiary sector – multiplier effect leading to more growth, increased GDP and foreign exchange.

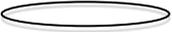
- **Explain** the problems caused by conflict diamonds.
 - Conflict diamonds or blood diamonds lead to conflict, corruption, cruelty and crisis.
 - Must make use of image; can refer to a place (a few Central and West African countries).
 - Lead to brutal wars and human rights abuses.
 - Life of miners is horrendous and they do not receive the world price of diamonds but far less.
 - Displace people from their homes.
 - Lead to the establishment of illegitimate / illegal supply chains for smugglers and traders in black market.
 - Have led to "Game of Stones", which is not the symbol of happiness but left a trail of carnage and brings nothing but misfortune.

- **Evaluate** solutions to the problems caused by conflict diamonds.
 - Kimberley Process grew out of a meeting in Kimberley, South Africa, in 2000 when the world's major diamond producers and buyers met to address growing concerns, and the threat of a consumer boycott, over the sale of rough, uncut diamonds to fund the brutal civil wars of Angola and Sierra Leone – inspiration for the 2006 film *Blood Diamond*. By 2003, 52 governments, as well as international advocacy groups, had ratified the scheme, establishing a system of diamond "passports" issued from the country of origin that would accompany every shipment of rough diamonds around the world. Countries that could not prove that their diamonds were conflict-free could be suspended from the international diamond trade.
 - World diamond council endorses Kimberley process.
 - Suggestion that Kimberley Process definition of conflict diamonds to include issues of environmental impact, human-rights abuses and fair labour practice. They want a guarantee that it is ethical. They want to know about environmental impact. They want to know about labour practices. They want to know that the communities have benefited from the diamonds they are mining.
 - The Kimberley Process alone is not going to clean up the trade. Companies involved in the trade diamond must act responsibly by checking supply chains to ensure that conflict diamonds do not enter global markets. Then they must report on their findings and pay due diligence.
 - Consumers to be made aware and be conscientious as to the source.
 - Projects and campaigns such as: the "Diamonds are for never" campaign and "The Enough Project", an organisation dedicated to ending resource-based violence in Africa, help promote this awareness.

Criteria	(Level 3) Excellent – Good	(Level 2) Satisfactory	(Level 1) Poor
<p>Writing skills</p> <ul style="list-style-type: none"> • Taking into consideration structure and presentation. • Use of brief introduction and conclusion. • Logical discussion and use of subheadings. [5 marks allocated to this component] 	<p>(4–5 marks) Suitable introduction and conclusion. Sophisticated, coherent and structured writing. Subheadings and paragraphs have been effectively used. Report is concise, well-structured and succinct.</p>	<p>(3 marks) Introduction and conclusion present, although not ideal. Attempts to adhere to subheadings and use of paragraphs. Report deviates from the point in places and lacks brevity.</p>	<p>(0–2 marks) Writing is weak and almost unintelligible. No introduction or conclusion provided. No use/adherence to subheadings. Long sentences, poor grammar and ineffective use of paragraphs. Report is repetitive. Bullet points may have been used. 1 = must be awarded for any form of written attempt/effort</p>
<p>Content knowledge</p> <ul style="list-style-type: none"> • Correct use of geographical terminology and concepts. • Adherence to topic and subheadings. [10 marks to be allocated here] 	<p>(8–10 marks) Relevant content and detailed discussion of topic. Good use of geographical terminology and concepts. Appropriate number of facts presented / subheading. Min of 2 points for every subheading will earn candidate 8 marks. Extension work will provide a further 2 marks.</p>	<p>(5–7 marks) Some relevant content. An overview / general discussion of key issues. Basic usage of geographical concepts and terminology. (60–50% of required facts presented/ subheading). 1 point/subheading, or 2 points provided and only 2 paragraphs.</p>	<p>(1–4 marks) Digression from the topic. Weak grasp of concepts and terminology. Superficial/poor discussion. Almost no relevant facts/subheading.</p>
<p>Supporting evidence – analysis and understanding</p> <ul style="list-style-type: none"> • The ability to analyse and evaluate the topic is assessed in this category. • Reference made to case study material / Fact File / source material provided. • If appropriate, reference must be made to familiar / local or other examples. [5 marks allocated to this component] 	<p>(4–5 marks) The candidate is able to argue and evaluate appropriately. There is strong evidence of accurate application of understanding and evidence provided. Report demonstrates understanding and integration of relevant case study / Fact File / source material into the context of the report. Looking for evidence of unpacking content and high-order integration.</p>	<p>(3 marks) Superficial links made to case study/ Fact File / source material. Although reference to supporting examples has been made, it is not clear that the candidate has a good understanding of the example / case study material. Supporting evidence does not always relate appropriately to the subheading or context of discussion. Discussion lacks depth.</p>	<p>(0–2 marks) Limited to no reference made to case study / Fact File/ source material. Examples not provided. Has little to no geographical meaning. Little analysis or understanding. Demonstrates minimal understanding of topic.</p>

Total: 300 marks

The following marking codes are used in the assessment of the essays:

GEOGRAPHY ESSAY CODES	CONTENT
E – Excellent	
G – Good	_____ Underline relevant points if correct
V – Vague	 Circle incorrect points
R – Repetition	
I – Irrelevant	
F – Fair	
	EVIDENCE
	Place in () brackets where candidates have used evidence