NATIONAL SENIOR CERTIFICATE EXAMINATION
MAY 2023

GEOGRAPHY: PAPER I

MARKING GUIDELINES

Time: 3 hours 200 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 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.

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Marks must be awarded in line with:
- the specific content of the marking guidelines or the generic level descriptors for the question
- the specific skills defined in the marking guidelines or in the generic level descriptors for the question
- the standard of response required by a candidate as exemplified by the standardisation scripts.

Marks must be awarded **POSITIVELY**:
- Marks are awarded for correct / valid answers.
- Credit is given for valid answers that go beyond the scope of the syllabus referring to your senior sub-examiner or examiner as appropriate.
- Marks are awarded when candidates clearly demonstrate what they know and can do.
- Marks are not deducted for errors.
- Marks are not deducted for omissions.
- Answers should only be judged on the quality of spelling, punctuation and grammar when these features are specifically assessed by the question as indicated by the mark scheme. The meaning, however, should be unambiguous.

Rules must be applied consistently, e.g., in situations where candidates have not followed instructions or in the application of generic level descriptors.

Marks should be awarded using the full range of marks defined in the marking guidelines for the question; however, the use of the full mark range may be limited according to the quality of the candidate's responses.

Marks awarded are based solely on the requirements as defined in the marking guidelines.
Marks should not be awarded with grade thresholds or grade descriptors in mind.

When marking higher-order questions please use the essay coding system to make the moderation process more consistent, fair and easier.

Geography Essay Coding

E – Excellent
G – Good
F – Fair
V – Vague
R – Repetitive
I – Irrelevant

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SECTION A: INTEGRATED QUESTION: THE GEOGRAPHY OF THE NORTHERN CAPE				
QUESTION 1 PHYSICAL GEOGRAPHY				
1.1	**Climate True and False**			
	State whether the following statements are TRUE or FALSE. Write only the number of the question and True or False, e.g. 1.1.6 False.			
1.1.1	The bottom of the valley is warmest early in the morning.		False	
1.1.2	Urban areas are warmer than the rural areas because of the building materials.		True	
1.1.3	Berg winds are a result of adiabatic heating.		True	
1.1.4	Frost is formed in winter as a result of high pressure over the interior.		True	
1.1.5	The Cape Doctor is created by the ridging of the South Indian High-pressure system.		False	

1.2	**Subtropical Anticyclones and Associated Weather Conditions**			
Study Figure 1, a weather warning by the South African Weather Service.				
1.2.1	Select a bold word between brackets that would make the statement correct. Write only the question number and the selected word, e.g., (e) freeze			
(a)	The Northern Cape receives (**summer** / **winter**) rainfall.		summer	
(b)	The Northern Cape is to the (**west / east** / **south**) of the 500 mm isohyet.		west	
(c)	The (**interior anticyclone / low-pressure trough / tropical low**) is responsible for the formation of the thunderstorm in Figure 1.		low-pressure trough	
(d)	Thunderstorms form over the Northern Cape because of (**frontal / orographic / convectional**) rainfall.		convectional	

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1.2.2	Describe how line thunderstorms form over South Africa.		Air moves from both HP. Dry air from the west SAA and warm moist from the east SIA. Low-pressure troughs draw air together, forming a moisture front. Air rises to the east of the MF, forming thunderstorms.	THIS IS A CONCEPT QUESTION Candidates need to show an understanding of line thunderstorms. Give credit for reasonable and relevant alternatives. • **1 mark –** The response is mainly descriptive with little assessment of how thunderstorms are formed. Knowledge is primary, and understanding may be inaccurate. • **2 marks –** Response offers some assessment with superficial details of the formation of thunderstorms. Response develops on a largely secure base of knowledge and understanding. • **3 to 4 marks** – The response clearly explains how thunderstorms are formed. There is detailed knowledge and a solid conceptual understanding of the topic.
1.2.3	Explain why thunderstorms are important to the interior of South Africa.		They bring most of the water we need in the interior. The water is used for agriculture and for drinking. We store the water in dams.	THIS IS A CONCEPT QUESTION Candidates need to show an understanding of the importance of thunderstorms. Give credit for reasonable and relevant alternatives. • **1 mark –** Response offers some explanation with superficial details of the importance of thunderstorms. Knowledge is primary, and understanding may be inaccurate. • **2 marks** – The response clearly explains the importance of thunderstorms. There is detailed knowledge and a solid conceptual understanding of the topic.

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1.3	**Subtropical Anticyclones and Associated Weather Conditions**			
Study Figure 2, a tweet about a cut-off low that affected the Northern Cape and the rest of the country, and Figure 3, a synoptic chart generated at the same time.				
1.3.1	Provide labels for the following on Figure 3.			
(a)	Name the anticyclones A and B.		A – South Atlantic B – South Indian	
(b)	Name the weather feature at C.		C – Cold front, MLC	
1.3.2	Choose the definition of a cut-off low (write only the letter)		A A low-pressure system that has become displaced from the westerly wind belt and moves independently.	
1.3.3	Outline TWO effects of cut-off lows.		• It will bring heavy rain or snow • Heavy thunderstorms • Strong winds.	Give credit for a reasonable and relevant alternative. 1 mark per concept – can be a list.
1.3.4	Discuss the roles that anticyclones play in the formation of a cut-off low.		• The SAHP ridges towards RSA and the SIHP moves closer to the coast. • LP is unable to move along with the westerlies. • LP first becomes static and then starts to move from west to east.	THIS IS A CONCEPT QUESTION Candidates need to show an understanding of the formation of a cut-off low. MUST link to the anticyclones. • Give credit for reasonable and relevant alternatives. • **1 mark –** The response is mainly descriptive with little assessment of how cut-off lows are formed. Knowledge is primary, and understanding may be inaccurate. • **2 marks –** Response offers some assessment with superficial details of the formation of cut-off lows. Response develops on a largely secure base of knowledge and understanding. • **3 to 4 marks** – The response clearly explains how cut-off lows are formed. There is detailed knowledge and a solid conceptual understanding of the topic.

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1.4	**Drainage Systems in South Africa**			
Study Figure 4, a map of the Orange River basin.				
1.4.1	Match the letters **D**, **E** and **F** in Figure 4 to the following elements. Write only the question number and the letter of your choice, e.g., (d) C.			
(a)	Watershed		D	
(b)	Confluence		E	
(c)	Tributary		F	
1.4.2	Explain why the Orange River is considered an exotic river.		It is a river that starts in an area of high rainfall, receiving baseflow and then flowing through a dry area, receiving no base flow but having water in the channel.	THIS IS A CONCEPT QUESTION Candidates need to show an understanding of an exotic river. Give credit for reasonable and relevant alternatives. • **1 mark –** Response offers some superficial understanding of an exotic river. Knowledge is primary, and understanding may be inaccurate. • **2 marks –** The response clearly shows an understanding of an exotic river. There is detailed knowledge and a solid conceptual understanding of the topic.
1.4.3	Name TWO neighbouring countries that fall within the Orange River drainage basin.		• Lesotho • Botswana • Namibia	**ANY TWO**
1.4.4	Analyse the role of dams such as the Vaal Dam and the Gariep Dam in drainage basin management.		• Water supply – drinking • Irrigation • Flood control • Debris control • Navigation	Concepts need to be unpacked; this has to do with water management. • Give credit for reasonable and relevant alternatives. • **1 mark –** The response is mainly descriptive with little analysis of the role of dams. Knowledge is primary, and understanding may be inaccurate. • **2 marks –** Response offers some analysis with superficial details of the roles of dams.

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				Response develops on a largely secure base of knowledge and understanding. • **3 to 4 marks** – The response clearly analyses the role of dams. There is detailed knowledge and a solid conceptual understanding of the topic.

1.5	**Catchment and River management**			
Study Photograph 1 of a man-made canal along the Orange River in the Northern Cape.				
1.5.1	What is the purpose of the canal as shown in Photograph 1?		Canals are used to transport water for irrigation and other human uses.	• Give credit for reasonable and relevant alternatives.
1.5.2	Analyse ONE effect that canals along the Orange River could have on the discharge of the river.		• They could reduce the discharge of the river because of the fact that they draw water away. • Cause a decrease in the discharge velocity. • In times of flooding, they could decrease the flood peak. • Increase the lag time.	• Give credit for reasonable and relevant alternatives.
1.5.3	Discuss the benefit of canals to the agricultural industry.		• Non-irrigated wastelands can be developed by canal irrigation, which would increase the quantity of biomass in the area. • Economic development can be expedited by avoiding dangerous droughts. Dependence on rainfall can be minimised through canal development. • Canals are fed by rainwater received by rivers, and the water is used for irrigation. Production of crops needing more water is also possible through canals. Compared to non-irrigated soils,	Give credit for a reasonable and relevant alternative discussion. • **1 mark per benefit** – when the response has a superficial **discussion** and shows general knowledge and understanding. • **2 marks per benefit** – for a developed **discussion** that covers the content thoroughly. • Max 2 marks only ONE way is covered.

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			higher productivity per hectare is also possible due to canals. • Canal system is a permanent structure hence only maintenance is required for getting its benefits for a long time. • Canals are multi-purpose where, apart from irrigation, hydroelectricity generation, navigation, drinking water supply and fishery development are also made possible. • Groundwater level does not go down on account of canal irrigation. • Canals are also becoming tourist attractions these days.	

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1.6	**Fluvial Processes**			
Study Photograph 2 of the Augrabies Falls to the west of Upington, as well as Figure 4 on page 5, the map of the Orange River basin.				
1.6.1	Select the bold word between brackets that would make the statement correct. Write only the question number and the selected word, e.g., (d) rock.			
(a)	A waterfall is known as a (temporary / permanent / knick) base level of erosion.		temporary	
(b)	A waterfall will result in (headward erosion / lateral erosion / deposition) along the river channel.		headward erosion	
(c)	A waterfall is an example of (rejuvenation / grading / a profile)		rejuvenation	
1.6.2	Explain how a waterfall is formed along a river system.		• Often, waterfalls form as streams flow from hard rock to soft rock. • This happens both laterally (as a stream flows across the earth) and vertically (as the stream drops in a waterfall). • In both cases, the soft rock erodes, leaving a hard ledge over which the stream falls.	THIS IS A CONCEPT QUESTION Candidates need to show an understanding of how a waterfall is formed. Give credit for reasonable and relevant alternatives. • **1 mark –** Response offers some superficial understanding of the formation of a waterfall. Knowledge is primary, and understanding may be inaccurate. • **2 marks –** Response offers some explanation with superficial details of the formation of a waterfall. Response develops on a largely secure base of knowledge and understanding. • **3 – 4 marks –** The response clearly explains how a waterfall is formed. There is detailed knowledge and a solid conceptual understanding of the topic.

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QUESTION 2 HUMAN GEOGRAPHY				
2.1 **Study of Settlements**				
Study Figure 5, a map of the Hotazel region in the Northern Cape.				
2.1.1	Name TWO street patterns in the settlement of Hotazel that are visible on the map.		Grid iron/ grid Planned irregular Radial	
2.1.2	Match a word in Column B to the statement in Column A. Write only the question number and the word of your choice, e.g., (d) – metro			
(a)	Main economic activity in the region		Mining	
(b)	Settlement classification		Town	
(c)	Type of urban settlement		Mining town	

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2.2	**Structure of the Economy**			
Study Figure 5 and use your knowledge of South Africa. Select the correct answer in each instance. Write the number of the question and the letter corresponding to your answer, e.g., 2.2.0 A.				
2.2.1	Mining close to the surface, such as near Hotazel, is known as … mining. A deep-level B subsistence C opencast D zama zama		C opencast	
2.2.2	Mining is in the … economic sector. A primary B secondary C tertiary D quaternary		A primary	
2.2.3	… refers to the difference in value between imports and exports. A Trade agreement B Balance of trade C Local trade D International trade		B Balance of trade	
2.2.4	A settlement where the mode of transport for goods changes is known as a … A break-of-bulk. B harbour. C central place. D junction.		A break-of-bulk	

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2.3	**Mining**			
Study Figure 6, an infographic about manganese in the Northern Cape.				
2.3.1	Name the main port from which manganese is exported.		Gqeberha, Coega	
2.3.2	Name TWO uses of manganese.		• clear glass, • to desulphurise and deoxidise steel in steel production • reduce the octane rating in gasoline • black-brown pigment in paint • as filler in dry-cell batteries • alloys help stiffen the aluminium in soft-drink cans • a catalyst • a rubber additive • decolourise glass that is coloured green by iron impurities • minting of coins • ceramic colouring	Give credit for a reasonable and relevant alternative. 1 mark per concept – can be a list.
2.3.3	Name one forward linkage and one backward linkage of manganese mining.		**Forward** • Steel production • Glass production • Aluminium production **Backward** • Mining equipment	Give credit for a reasonable and relevant alternative. 1 mark per concept – can be a list.
2.3.4	How does the location of the manganese mines in the Northern Cape increase the export costs?		The Northern Cape is isolated and very sparse, with few major core areas. The infrastructure is specifically built to accommodate the resource, added to the cost of production.	Candidates need to show an understanding of the effect of location on economic development. Give credit for reasonable and relevant alternatives. • **1 mark –** Response offers some superficial understanding of how the location affects mining in NC. Knowledge is primary, and understanding may be inaccurate.

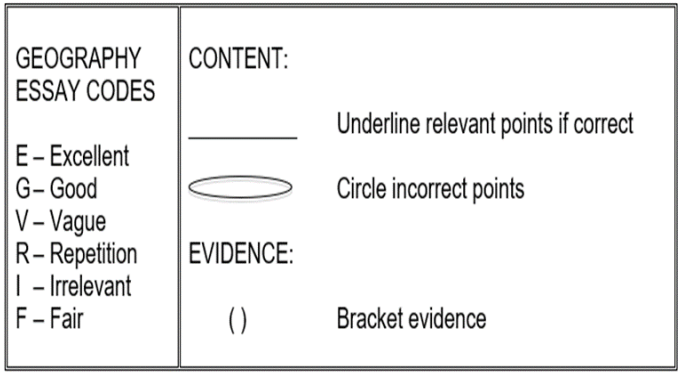
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				• **2 marks –** The response clearly shows an understanding of how the location will affect mining in NC. There is detailed knowledge and a solid conceptual understanding of the topic.
2.3.5	Discuss the importance of mining to the economy of the Northern Cape.		• Few core urban areas • People need jobs • Building infrastructure • Allows for development of skills	THIS IS A CONCEPT QUESTION Candidates need to show an understanding of the importance of mining to the NC economy. Give credit for reasonable and relevant alternatives. • **1 mark –** Response offers some superficial understanding of the importance of mining to the NC economy. Knowledge is primary, and understanding may be inaccurate. • **2 marks –** Response offers some discussion with some details of an understanding of the importance of mining to the NC economy. Response develops on a largely secure base of knowledge and understanding. • **3–4 marks –** The response clearly discusses the importance of mining to the NC economy. There is detailed knowledge and a solid conceptual understanding of the topic.
2.3.6	Discuss TWO factors that limit mining in the Northern Cape.		• Lack of water • No large labour force • Arid region • Very unskilled labour • Little attraction for work and movement of families	Give credit for a reasonable and relevant alternative discussion. • **1 mark per factor**– when the response has a superficial **discussion** and shows general knowledge and understanding. • **2 marks per factor** – for a developed **discussion** that covers the content thoroughly. Max **2 marks** only ONE factor is covered.

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2.3.7	Predict how SMMEs can be used to arrest social justice issues.		• Develop entrepreneurial spirit • Help new entrance into the market • Creating more jobs and opportunities. • Employing local workers • Contributing to local government with taxes • Open to other genders • Open to anyone that might have been disadvantaged in the past.	THIS IS A CONCEPT QUESTION Candidates need to show an understanding of the role of SMMEs in helping the social justice issues in South Africa. Give credit for reasonable and relevant alternatives. • **1–2 marks –** The response is mainly descriptive with little assessment of the roles of SMME in social justice. Knowledge is primary, and understanding may be inaccurate. • *If just a list is given with no unpacking (MAX 2 marks)* • **3–4 marks –** Response offers some assessment with superficial details on the roles of SMME in social justice. Response develops on a largely secure base of knowledge and understanding. Examples may lack detail or development. • **5 to 6 marks** – The response clearly explains the roles of SMME in social justice. There is detailed knowledge and a solid conceptual understanding of the topic. Any examples used are appropriate and integrated effectively into the response.

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QUESTION 3 EXTENDED WRITING		
Please DO NOT tick when marking an essay – this confuses the checkers. Rather, underline valid and appropriate points and use the code system.		
Study Photograph 3, the town of Bitterfontein, a junction town between Springbok and Cape Town along the N7. It is a typical town struggling with rural depopulation. Study figures 7 and 8.		
Use Photograph 3, Figure 7 and Figure 8 on page 11 and any other sources from Questions 1 and 2. Write a report for the Northern Cape government to discuss the impact of rural–urban migration on the province. Use any additional information to help you discuss the following subheadings:		
• Outline the factors that cause rural–urban migration.	A description of any push or pull factor. **Push factors:** • Lack of services • Low employment • Lack of safety • High crime • Crop failure • Drought • Flooding • Poverty • War **Pull factors** • Better services • Higher employment • Safe society • Less crime • Fertile land	• Give credit for a reasonable and relevant alternative. Watch out for repetition in paragraphs. Credit each fact only once.

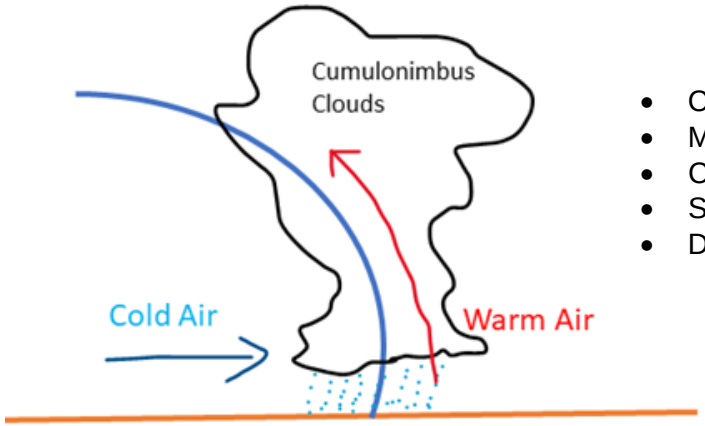
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	• Lower risk of natural hazards • Good climate • More wealth • Political stability	
• Assess the negative economic impact of rural–urban migration on rural areas.	• Businesses close down • Services underutilised • Infrastructure becomes run down • Aged population • No natural increase in population • More unemployment	• Give credit for a reasonable and relevant alternative. Watch out for repetition in paragraphs. Credit each fact only once.
• Predict the difficulties rural migrants experience in urban areas and the impact on their quality of life.	• No jobs • No income • Poor housing • No access to the services they need • No space to live • Crime – victims • Infrastructure is not adequate for the people	• Give credit for a reasonable and relevant alternative. Watch out for repetition in paragraphs. Credit each fact only once.

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Criteria	Level 3 Excellent – Good	Level 2 Satisfactory	Level 1 Poor
Writing skills • Take into consideration structure and presentation. • Use of brief introduction and conclusion. • Logical discussion and use of subheadings. **[4 marks allocated to this component]**	Suitable introduction and conclusion. Sophisticated, coherent and structured writing. Subheadings and paragraphs effectively used. The report is concise, well-structured and succinct. **4 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. **3 marks**	Writing is weak and almost unintelligible. No introduction or conclusion provided. No use of/ adherence to subheadings. Long sentences, poor grammar and ineffective use of paragraphs. The report is repetitive. Bullet points may have been used. *1 = must be awarded for any form of written attempt / effort* **2–0 marks**
Content knowledge • Correct use of geographical terminology and concepts. • Adherence to topic and subheadings. **[12 marks allocated to this component]**	Response thoroughly assesses the relevant content and detailed discussion of the topic. An effective and sustained evaluation with a sound conclusion. Response is well founded in detailed exemplar knowledge and strong conceptual understanding of the topic. Examples used are appropriate and integrated effectively into the response. Good use of geographical terminology and concepts. An appropriate number of facts presented per subheading. Min of 2 points for every sub-heading will earn candidate 10 marks. Extension work will provide a further 2 marks. **12–9 marks**	Response demonstrates some knowledge and understanding. Some relevant content. Response is broadly evaluative in character, comprising some explanatory or narrative content and a conclusion. Response develops from secure base of knowledge and understanding with the use of examples. An overview / general discussion of key issues. Displays a fair understanding of the topic, however, inaccurate or vague in some of their discussions. Basic use of geographical concepts and terminology. 60–50% of required facts presented per subheading. 1 point per sub-heading, or 2 points provided and only 2 paragraphs. **8–5 marks**	Response makes a few general points about the topic. A descriptive response comprising a few simple points. Knowledge is basic and understanding may be poor and lack relevance to the Question set. Digression from the topic. Weak grasp of concepts and terminology. Isolated and generic elements of understanding and knowledge. Superficial / poor discussion. Almost no relevant facts / subheading. **4–0 marks**
Supporting evidence – analysis and understanding • 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. **[4 marks allocated to this component]**	The candidate is able to argue and evaluate appropriately. There is strong evidence of accurate application of understanding and evidence provided. The report demonstrates the 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. **4 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 the discussion. Discussion lacks depth. **3 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 the topic. **2–0 marks**

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SECTION B – CLIMATE, WEATHER AND GEOMORPHOLOGY				
QUESTION 4 CLIMATE				
4.1 **Mid-latitude Cyclone**				
Study Figure 9, a synoptic chart produced by AfricaWeather.				
4.1.1	Identify whether Figure 9 represents typical summer or winter conditions.		Winter	
4.1.2	Give ONE piece of evidence for your answer to Question 4.1.1		• High pressure over the interior • A cold front approaching the country	Give credit for a reasonable and relevant alternative. 1 mark per concept – can be a list.
4.1.3	Provide names for the following:			Give credit for a reasonable and relevant alternative. 1 mark per concept – can be a list.
	(a) Anticyclone labelled G		South Atlantic high pressure/ anticyclone	
	(b) Low-pressure system labelled I		Mid-latitude cyclone	
	(c) Front labelled J		Warm front	
4.1.4	Draw a cross-section from L to K.			• Clouds – 1 mark • Movement of the air –1 mark • Cold and warm air – 1 mark • Shape of front – 1 mark • Drawing – 1 mark

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4.1.5	How and why do the weather conditions for Cape Town change as the cold front M passes over the city.		**Why** • Movement of the cold front over the Cape **How** • Wind direction changes. • Winds become gusty. • There is a sudden drop in temperature. • Heavy rain, sometimes with hail, thunder, and lightning.	THIS IS A CONCEPT QUESTION Candidates need to show an understanding of how weather conditions change as a cold front passes. Candidate must have both why and how to get full marks. Give credit for reasonable and relevant alternatives. • **1 mark** per response is mainly descriptive with little assessment of how weather conditions change as a cold front passes. Knowledge is primary, and understanding may be inaccurate. • **2 marks per** response offers some assessment with superficial details on how weather conditions change as a cold front passes. Response develops on a largely secure base of knowledge and understanding.

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4.2	**Tropical Cyclone**			
Tropical cyclone Batsirai was one of the most significant Indian Ocean storms in 2022. Study Figure 10 showing the path of the storm across Madagascar.				
4.2.1	Describe the movement of tropical cyclone Batsirai.		• Moving in a westerly direction, then recurving south • Moves west over Madagascar, then south over the channel	Give credit for a reasonable and relevant alternative.
4.2.2	Describe TWO impacts that Batsirai would have had when it made landfall over Madagascar.		• Heavy rain • Strong wind • Large storm surges near landfall • Tornadoes	Give credit for a reasonable and relevant alternative description. • **1 mark per concept** – when the response has a superficial **description** and shows general knowledge and understanding. • **2 marks per concept** – for a developed **description** that covers the content thoroughly. Max **2 marks** only ONE way is covered
4.2.3	Name THREE requirements for the formation of a tropical cyclone.		• Warm ocean • Deep low pressure • Low wind shear • Coriolis force	Give credit for a reasonable and relevant alternative. 1 mark per concept – can be a list.
4.2.4	Give TWO reasons why Batsirai weakened as it moved west.		• Moved over cooler water • Moved over land (Madagascar)	Give credit for a reasonable and relevant alternative.

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QUESTION 5 GEOMORPHOLOGY

5.1 Fluvial Terminology

Match the term in Column B with the description in Column A. Write only the question number and the letter of your choice, e.g., 1.1.0 A.

5.1.1	Water movement in which the lines of flow are erratic and mixed, and the flow direction changes frequently.		C. Turbulent flow	
5.1.2	Relating to the banks of a stream		E. Riparian zone	
5.1.3	Scraping or grinding away a surface by friction ensues from the collision between particles during their transport.		B. Abrasion	
5.1.4	The line that extends down a channel that follows the lowest elevation of the bed.		F. Thalweg	

5.2 Fluvial Processes

Figure 11 is a topographical map extract showing the Buffalo River in the northern Cape region.

Select a bold word between brackets that would make the statement correct. Write only the question number and the selected word, e.g., 5.2.0 freeze.

5.2.1	The steam channel pattern is (braided / meandering / rock controlled).		braided	
5.2.2	The main reason for this pattern is (less gradient/ rejuvenation / flooding).		less gradient	
5.2.3	The main cause of this pattern is (erosion / deposition / transportation).		deposition	
5.2.4	This pattern forms (distributaries / oxbow lakes / potholes).		distributaries	

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5.3	**Drainage Systems in South Africa**			
Study Figure 12, a map of the Crocodile River basin.				
5.3.1	Determine the stream order of the Crocodile River.		3rd	
5.3.2	Assess whether the Crocodile River is graded or ungraded.		Ungraded (1) This is because it has several knickpoints along the course of the river, i.e., the dams. (2)	Candidates need to know what a graded or ungraded river is. Give credit for reasonable and relevant alternatives. • **1 mark –** Response offers some superficial understanding of an ungraded or graded river. Knowledge is primary, and understanding may be inaccurate. • **2 marks –** The response clearly shows an understanding of an ungraded and graded river. There is detailed knowledge and a solid conceptual understanding of the topic.
5.3.3	As the river passes through the Hartbeespoort Dam and Magaliesberg Mountains at **N**, it is regarded as having a *superimposed drainage pattern*.			
	Explain how a *superimposed drainage pattern* is formed. Refer to the Crocodile River in your explanation.		A drainage pattern that has been established on an earlier surface (perhaps conformable with the immediately underlying strata and standing well above the present landscape). Subsequently, the pattern was lowered by river incision so that it now lies across geologic structures to which it bears no relation. *Must use the Crocodile River in their answer*	THIS IS A CONCEPT QUESTION Candidates need to show an understanding of how a superimposed drainage pattern is formed. Give credit for reasonable and relevant alternatives. • **1 mark –** The response is mainly descriptive with little assessment of how a superimposed drainage pattern is formed. Knowledge is primary, and understanding may be inaccurate. • **2 marks –** Response offers some assessment with superficial details on how a superimposed drainage pattern is formed. Response develops on a largely secure base of knowledge and understanding.

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				Superficially uses the Crocodile River to explain. • **3 – 4 marks –** The response clearly explains how a superimposed drainage pattern is formed. There is detailed knowledge and a solid conceptual understanding of the topic. Uses the Crocodile River to explain
5.3.4	Analyse TWO effects a dam has on a river system.		• Disorientates migrating fish • Destroys natural seasonal flow variations • Can trap sediment • Buries rock riverbeds where fish spawn. • Gravel, logs, and other essential food and habitat features can also become trapped behind dams. • Dams that divert water for power and other uses also remove water needed for healthy in-stream ecosystems. • This can leave stretches below dams completely de-watered. • Slow-moving or still reservoirs can heat up, resulting in abnormal temperature fluctuations • algal blooms and decreased oxygen levels.	Give credit for a reasonable and relevant alternative analysis. • **1 mark per effect** – when the response has a superficial **analysis** and shows general knowledge and understanding. • **2 marks per effect –** for a developed **analysis** that covers the content thoroughly. • Max **2 marks** only ONE effect is covered

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5.3.5	Evaluate how urbanisation along a river system affects a storm hydrograph.		It will increase the flood peak and decrease the lag time. This is due to the types of materials used in a city, causing more surface runoff.	THIS IS A CONCEPT QUESTION Candidates need to show an understanding of how urbanisation affects a hydrograph and river discharge. Give credit for reasonable and relevant alternatives. • **1 mark –** The response is mainly descriptive with little assessment of how urbanisation affects a hydrograph and river discharge. Knowledge is primary, and understanding may be inaccurate. • **2 marks –** Response offers some assessment with superficial details on how urbanisation affects a hydrograph and river discharge. Response develops on a largely secure base of knowledge and understanding. • **3 – 4 marks –** The response clearly explains how urbanisation affects a hydrograph and river discharge. There is detailed knowledge and a solid conceptual understanding of the topic.

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QUESTION 6 SETTLEMENT				
6.1 **Rural Settlement**				
Study the topographical map extract (Figure 13) of a region in the southwestern Cape.				
6.1.1	Match the correct word(s) or letter from Column B to the statement in Column A. Write only the question number and the word(s) or letter of your choice, e.g., (h) site.			
(a)	Settlement **O** is classified as a/an ...		isolated farmstead	
(b)	Settlement **P** is classified as a/an ...		village	
(c)	Settlement … has the higher-order services.		**P**	
(d)	Settlement … has the largest range.		**P**	
(e)	The shape of settlement **Q** is described as …		linear	
(f)	Settlement **O** is a … settlement.		wet-point	
(g)	Settlement **O** practices … farming.		commercial	
6.1.2	Describe TWO situation factors for settlement **O**.		• In the flood plain for water • Main road around to transport goods • Northern side of the valley • Close to town to sell produce	Give credit for a reasonable and relevant alternative description. • **1 mark per factor** – when the response has a superficial description and shows general knowledge and understanding. • **2 marks per factor** – for a developed description that covers the content thoroughly. • Max 2 marks only ONE factor is covered

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6.2	**Urban Hierarchies**			
Study Figure 14, an infographic showing the 20 largest cities by population.				
6.2.1	Name the biggest city in Africa.		Cairo	
6.2.2	State TWO reasons why cities around the world are growing rapidly.		• Increasing birth rates and decreasing death rates • Improved health care • Longer life expectancies • Greater employment opportunities • Better-paid jobs in the cities, • An expected higher standard of living, • More reliable food supply • Better medical conditions	Give credit for a reasonable and relevant alternative. 1 mark per concept – can be a list.
6.2.3	Discuss TWO consequences of such urban growth.		• Leads to greater poverty. • Local governments unable to provide services. • Concentrated energy-use leads to greater air pollution. • Significant impact on human health. • Automobile exhaust produces elevated lead levels in urban air. • Large volumes of uncollected waste create multiple health hazards. • Urban development can magnify the risk of environmental hazards such as flash flooding. • Pollution and physical barriers to root growth promote loss of urban tree cover. • Animal populations are inhibited by toxic substances, vehicles, and the loss of habitat and food sources.	Give credit for a reasonable and relevant alternative discussion. • **1 mark per consequence –** when the response has a superficial **discussion** and shows general knowledge and understanding. • **2 marks per consequence –** for a developed **discussion** that covers the content thoroughly. • Max 2 marks only ONE consequence is covered

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6.3	**Urban Structure and Patterns**			
Study Photograph 4, a view of the skyline of the Johannesburg CBD.				
6.3.1	Explain why taller buildings are found in the CBD.		This is because the land is more expensive, so better to build up.	Candidates must show an understanding of bid rent curve.
6.3.2	The Johannesburg CBD has been going through a period of gentrification. Elaborate on the effects that urban renewal has on an urban area.		• Unsustainable increases in property prices • Higher lifestyle costs • Cause of social exclusion, gentrification and displacement of long-term residents of lower socio-economic (SES) levels. • Ignore social diversity and focus on harbouring middle- to upper-class residents.	THIS IS A CONCEPT QUESTION Candidates need to show an understanding of the effect of gentrification and urban renewal. Give credit for reasonable and relevant alternatives. • **1–2 marks –** The response is mainly descriptive with little assessment of the effect of gentrification and urban renewal. Knowledge is primary, and understanding may be inaccurate. • *If just a list is given with no unpacking (MAX 2 marks)* • **3–4 marks –** Response offers some assessment with superficial details on the effect of gentrification and urban renewal. Response develops on a largely secure base of knowledge and understanding. Examples may lack detail or development. • **5–6 marks** – The response clearly explains the effect of gentrification and urban renewal. There is detailed knowledge and a solid conceptual understanding of the topic. Any examples used are appropriate and integrated effectively into the response.

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QUESTION 7 ECONOMY OF SOUTH AFRICA				
7.1 **Agriculture**				
Study Photograph 5 of a typical farm in the Western Cape.				
	Choose FOUR of the following statements to describe the type of farming shown in this photograph. Write only the letters of the statements you choose. E.g., H, I, J and K. A Produces a low yield per hectare. B Focuses on food security in local communities. C Capital-intensive and uses advanced technology. D Associated with monoculture. E Small-scale farming. F Products for the home and export market. G Associated with extensive farming practices.		C Capital-intensive and uses advanced technology D Associated with monoculture F Products for the home and export market G Associated with extensive farming practices	

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7.2	**Strategies for Industrial Development**			
Read the following Fact File about the Fish River SDI, study Figure 15, a Fish River SDI location map, and Figure 16, an infographic about the Fish River SDI, and answer the questions on page 24.				
7.2.1	Explain what an IDZ is. (Do not simply expand the abbreviation.)		An Industrial Development Zone (IDZ) is a purpose-built industrial estate linked to an international seaport or airport and that is capable of leveraging fixed direct investments in value-added and export-orientated manufacturing industries.	
7.2.2	Discuss TWO benefits of an IDZ to a region like the Eastern Cape.		• Creates jobs • Drives infrastructure development • Generates foreign income • More linked industries	Give credit for a reasonable and relevant alternative discussion. • **1 mark per benefit –** when the response has a superficial **discussion** and shows general knowledge and understanding. • **2 marks per benefit** – for a developed **discussion** that covers the content thoroughly. • Max 2 marks only ONE benefit is covered
7.2.3	Evaluate the importance of a port or harbour to an IDZ.		• The main focus is export, so the IDZ needs a port or an airport. • Ports and airports are used to export and import goods. • IDZ's primary focus is on technology or more export and foreign investment industries. • Infrastructure is geared towards linking the port and the IDZ. • Jobs and skills are developed to cater for the link.	Candidates need to show an understanding of the link between a port and an IDZ. Give credit for reasonable and relevant alternatives. • **1 mark –** The response is mainly descriptive with little assessment of the link between a port and an IDZ. Knowledge is primary, and understanding may be inaccurate. • **2 marks –** Response offers some assessment with superficial details on the link between a port and an IDZ. Response develops on a largely secure base of knowledge and understanding. • **3 – 4 marks –** The response clearly evaluates the link between a port and an IDZ. There is detailed knowledge and a solid conceptual understanding of the topic.

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7.2.4	Assess how tourism could aid in the development of the Fish River SDI.		• Tourism in South Africa is a strategic sector and potentially one of the driving forces of the economy in the 21st century • Links to new tourism • Ecotourism • Provides vital skills • Develops linked industries	Candidates need to show an understanding of the link between an SDI and tourism and how it can aid development. **Give credit for reasonable and relevant alternatives.** • **1 mark –** The response is mainly descriptive with little assessment of the link between an SDI and tourism and how it can aid development. Knowledge is primary, and understanding may be inaccurate. • **2 marks –** Response offers some assessment with superficial details on the link between an SDI and tourism and how it can aid development. Response develops on a largely secure base of knowledge and understanding. • **3 – 4 marks –** The response clearly explains the link between an SDI and tourism and how it can aid development. There is detailed knowledge and a solid conceptual understanding of the topic.
7.2.5	Discuss TWO hindrances to manufacturing the Gqeberha region.		• No raw materials from mining. • Higher electricity prices. • No power supply (load-shedding) • Lack of water – drought in the region. • Labour strikes e.g., Gqberha–Uitenhage relies heavily on the motor vehicle industry. • Strikes in these industries has a major negative impact. • Some motor vehicle companies have moved to other areas.	Give credit for a reasonable and relevant alternative discussion. • **1 mark per hindrance –** when the response has a superficial discussion and shows general knowledge and understanding. • **2 marks per hindrance –** for a developed discussion that covers the content thoroughly. • Max 2 marks only ONE hindrance is covered

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			• Factors like overconcentration of industries and pollution may not be as bad as in the PWV region. • As more development occurs, the negative impact of these factors increases. • Far from the main consumer areas	
7.2.6	Name TWO things that promote manufacturing in the Gqeberha region.		• Harbour • Examples: cheaper costs for importing e.g., car parts, • Exporting of motor vehicles. • Skilled and unskilled labour supply in Eastern Cape population 6 734 001 (11,3%) (2020). Approximately 1,3 million in Gqeberha–Uitenhage. • Good supply of raw materials (generally agricultural relating to many industries in area e.g., textile). • Established businesses. • A good transport network (road, rail, air and port). • The Coega Industrial Development Zone, a project that encourages industrial development, has brought in a lot of investment and industrial development.	Give credit for a reasonable and relevant alternative. • 1 mark per concept – can be a list.
7.2.7	Name TWO items manufactured in Gqeberha.		• Motor vehicles e.g., car assembly plants (Volkswagen SA). • Car parts • Tyres • Windscreens • Textiles e.g., wool and cotton • Leather; shoe factories and car upholstery • Fruit canning • Salt works	Give credit for a reasonable and relevant alternative. 1 mark per concept – can be a list.

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