

**GEOGRAPHY: PAPER I**

Time: 3 hours

300 marks

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**PLEASE READ THE FOLLOWING INSTRUCTIONS CAREFULLY**

1. This question paper consists of 20 pages; an Answer Sheet of 3 pages (i–iii) and a Colour Insert of 3 pages (i–iii). Detach the Answer Sheet and the Colour Insert from the middle of the question paper. Please check that your question paper is complete.
  2. Read the questions carefully.
  3. **ALL THREE QUESTIONS ARE COMPULSORY.**
  4. Credit will be awarded for the following:
    - Interpretation and explanation; and
    - Evidence of personal observations where this is appropriate to the question.
  5. You are encouraged to use sketch maps, diagrams and other explanatory drawings to support your answers wherever relevant.
  6. Number your answers exactly as the questions are numbered.
  7. It is in your own interest to write legibly and to present your work neatly.
  8. There is a GLOSSARY of words on page 2 explaining what the words in **bold** used in the questions mean.
  9. Candidates must pay attention to the mark allocation. Unless otherwise indicated, two marks are awarded for a valid response. This means that a question carrying four marks requires two responses.
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**GLOSSARY**

<b>WORD</b>	<b>MEANING</b>
<b>Account for</b>	To justify, and provide reasons for something using a short explanation.
<b>Calculate</b>	To work something out using a mathematical method.
<b>Classify</b>	To arrange in categories or groups according to shared qualities.
<b>Compare</b>	To note the similarities and or differences between two things.
<b>Compile</b>	Produce something by putting together pieces of information.
<b>Complete</b>	To finish or include any missing items or information.
<b>Describe</b>	To provide the main characteristics of something; to provide an account of. (Note: A diagram or map may be included as part of a description.)
<b>Diagram</b>	A sketch representation of a concept.
<b>Discuss</b>	To examine or investigate by way of an argument the various aspects of a statement.
<b>Draw</b>	To show by means of a sketch.
<b>Evaluate</b>	To judge or determine, to provide an opinion about a particular matter.
<b>Explain</b>	To make clear or plain. To make sure the reader understands what is being said.
<b>Fill in</b>	To indicate; to write.
<b>Identify</b>	To give the essential characteristics of; to name.
<b>Illustrate</b>	To show something by means of a sketch or diagram.
<b>Indicate</b>	To show, point out and make clear.
<b>Justify</b>	To explain and give reasons for.
<b>Label</b>	Attach information to a sketch/diagram.
<b>List</b>	A set of ideas or responses, with little detail.
<b>Match</b>	To find the exact counterpart of another.
<b>Mention</b>	Refer to something briefly without going into detail.
<b>Mindmap</b>	A series of text bubbles and arrows used to visually organise information. Shows relationships among pieces of the whole.
<b>Name</b>	To state something; to give; to mention.
<b>Outline</b>	A general description or plan showing the main features of something.
<b>Provide</b>	To give.
<b>Redraw</b>	To draw up or sketch again.
<b>Select</b>	To choose; to pick out the correct answer from several alternatives.
<b>Show</b>	To indicate; to point out.
<b>Suggest</b>	To put forward an idea, to recommend, or propose something.

**SECTION A            GEOGRAPHICAL ISSUES****QUESTION 1            GEOGRAPHICAL CASE STUDY: FOCUS ON THE  
BRAAMFONTEIN SPRUIT, JOHANNESBURG, GAUTENG****1.1            Geographical Information Systems**

Read and carefully study the following information. Refer to Figure 2 and Photographs 1 and 2 in the Colour Insert (page i). Answer the questions thereafter.

**FACT FILE: The Braamfontein Spruit\*: Johannesburg**

Rivers draining Johannesburg have undergone major changes due to rapid urban development.

These changes have included canalisation of natural channels and extension of drainage networks by storm water drains to accommodate greater volumes and runoff rates from increased impermeable surfaces.

These changes have caused greater erosion and flooding problems along the rivers.

The Braamfontein Spruit is the longest river in Johannesburg. The river has its source in Berea, close to the inner city.

Once the river runs out of the Parkview Golf Club area, it runs through residential suburbs and parkland, so that Joburgers can still enjoy it in its original state.

The Braamfontein Spruit greenbelt area is one of the city's largest green lung parks, with walkers, runners and cyclists using a path along its banks every weekend.

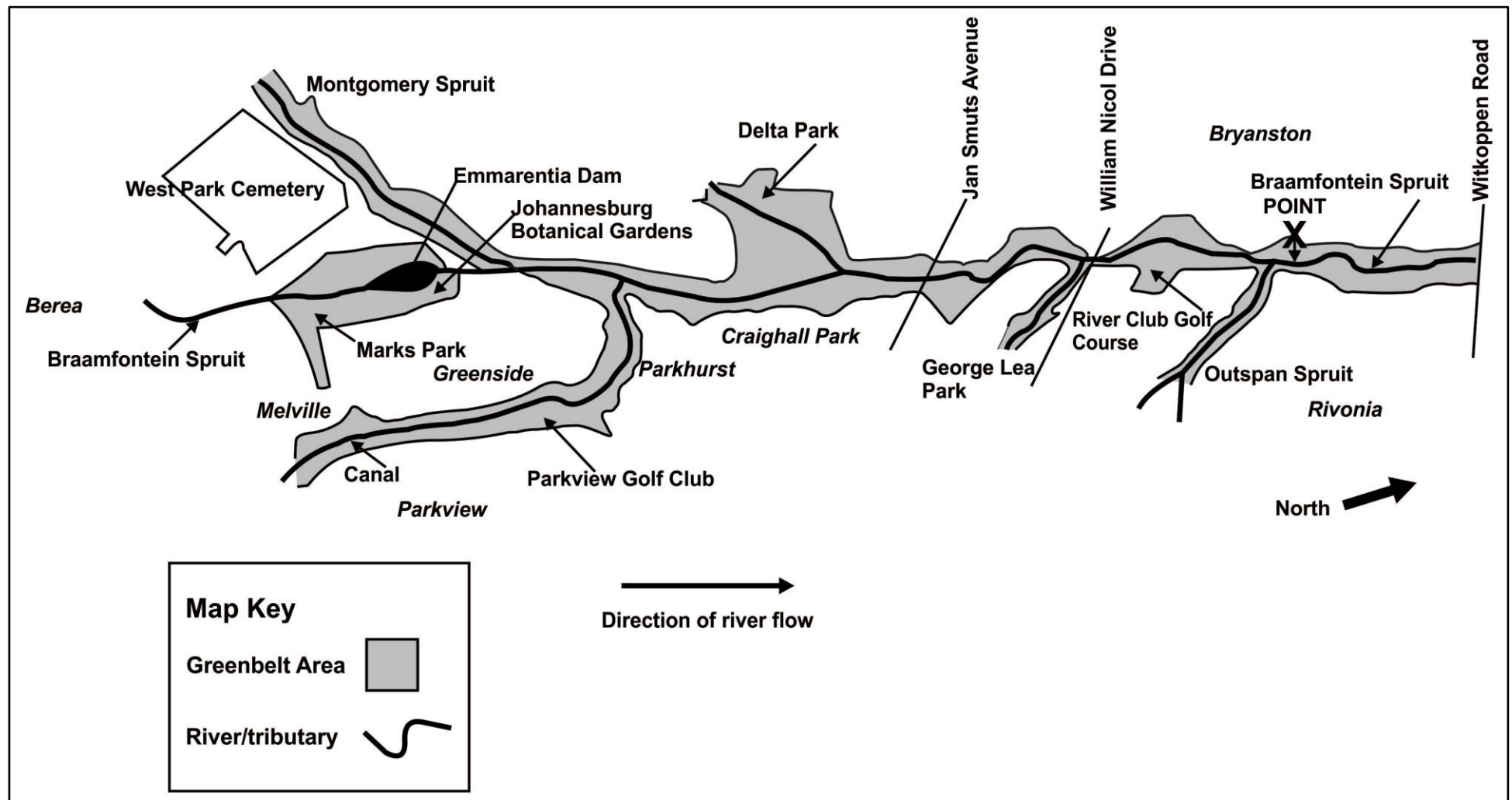
[Adapted from: <Joburg.org.za>]

\**Spruit: river/stream*

Study the catchment map, Figure 1 (page 4) and Figure 2 (Colour Insert page i).

- 1.1.1 Which mountain bike route is shown in Figure 2? (2)
- 1.1.2 **Name** any TWO GIS layers that are active (selected) on Figure 2 (Hint: Refer to the key). (4)
- 1.1.3 **Identify** the attribute data provided by the GIS in Figure 2 for the bike route. (4)
- 1.1.4 **Suggest** how the attribute data identified in Question 1.1.3 is useful to a mountain biker wanting to plan and prepare for cycling this route. (4)
- 1.1.5 A number of new business opportunities have arisen in Johannesburg as a result of the popularity of mountain biking.
- (a) **Provide** TWO examples of possible business opportunities which may have opened up that could be linked to mountain biking. (4)
- (b) **Indicate** which economic sector each of these business opportunities you mentioned in (a) above form a part of. (4)

**Figure 1: Braamfontein Spruit: A large Greenbelt area in Johannesburg – Catchment Map**



[Source: <<http://www.amethyst.co.za/Veld/BraamfonteinSpruitBryanston>>]

## 1.2 Drainage systems, catchment and river management

- 1.2.1 **Select** the correct word(s) from the underlined list for each statement. Write down the answer next to the question number in your Answer Book, e.g. 1.2.1 (a) – water table.
- (a) The water flowing overland when the soil is saturated and the ground impermeable is referred to as (the) water table / surface runoff / ground water. (2)
- (b) The process of altering a river channel to improve flow in urban areas is referred to as: base flow / infiltration / canalisation. (2)
- (c) The point where a river originates from, normally in the form of a natural spring is called (the/a) source / mouth / tributary. (2)
- 1.2.2 Refer to Figure 1 (page 4). **Name** TWO tributaries of the Braamfontein Spruit. (4)
- 1.2.3 **Name** ONE temporary base level along the Braamfontein Spruit as seen in Figure 1 (page 4). (2)
- 1.2.4 With reference to the source material and Photographs 1 and 2 in the Colour Insert (page i), **suggest** THREE ways in which urban development has impacted upon the natural channel flow of the Braamfontein Spruit. (6)
- 1.2.5 **Draw** a well-labelled typical storm hydrograph for the Braamfontein Spruit for Point X (Figure 1, page 4) following a heavy summer thunderstorm. On your hydrograph, label the following:
- Base flow
  - Lag time
  - Peak discharge.
- (8)
- 1.2.6 Storm water drains in the Braamfontein Spruit catchment are often blocked with rubbish. **Suggest** how this may impact upon:
- the discharge of the Braamfontein Spruit and
  - runoff levels in the area following a summer thunderstorm.
- (4)

## 1.3 Urban structure and land-use

Study the information in the Fact File (page 3) and Figure 1 (page 4) as well as Figure 2 on page (i) of the Colour Insert.

- 1.3.1 **Name** the urban land-use zone through which the Braamfontein Spruit mainly flows. (2)
- 1.3.2. **Name** THREE main roads (transport routes) which intersect the Braamfontein Spruit. (6)
- 1.3.3 **Suggest** why the Braamfontein Spruit is an important recreational area in Johannesburg. Refer to evidence from the Fact File and Figures 1 and 2. (4)

### 1.4 The Informal Sector and Urban Settlement Issues

**FACT FILE: Urban Waste Pickers are a big part of the informal sector**

- A waste picker is a person who searches through municipal and household bins and finds reusable or recyclable materials thrown away by others to sell or for personal use.
- In South Africa it is estimated that 85 000 people make a living as waste pickers.
- Research reveals that the average South African waste picker can earn an income of up to R120 per day.

[Source adapted from: <www.urbanearth.co.za>]

**Figure 3: Waste Pickers at a sorting site along the Braamfontein Spruit, Johannesburg**



Plastic bottles being sorted by waste pickers – along the Braamfontein Spruit area.

[Source: *Randburg Sun*, June 2016]

GroundWork is a non-profit organisation working in South Africa tackling a variety of environmental and social justice issues in order to improve the quality of life of people, such as waste pickers. You are an employee of GroundWork and have been asked to **compile** a report in which you address the following key aspects:

- A description of the work typically performed by waste pickers.
- Challenges waste pickers face on a daily basis.
- The importance of waste picking to the informal sector of South Africa's economy.
- The positive role waste pickers play in the environmental sustainability of urban areas.

(24)

Refer to the report assessment rubric on page 7 for guidance:

**Report assessment rubric**

<b>Criteria</b>	
<b>Writing Skills</b> Use of brief introduction and conclusion. Logical discussion and use of subheadings.	<b>5</b>
<b>Content Knowledge</b> Correct use of geographical terminology.	<b>14</b>
<b>Supporting evidence – analysis and understanding</b> Reference made to case study material, Fact File/source material provided. If appropriate, reference must be made to local or familiar examples.	<b>5</b>

**1.5 Johannesburg's urban climate**

Refer to the Fact File on the Braamfontein Spruit (page 3) and Figure 1 (page 4).

1.5.1 The Braamfontein Spruit greenbelt area is a '*green lung*'. **Explain** the meaning of a green lung area. (2)

1.5.2 The Braamfontein Spruit is likely to have a different microclimate from that of the downtown CBD of Johannesburg.

- **Redraw** the following table into your Answer Book.
- **Complete** the microclimate comparison for the two areas indicated.
- **Provide** detailed descriptions / appropriate examples for each element being compared.

Note: Use sufficient space when compiling your answer table.

<b>Characteristics</b>	<b>Braamfontein Spruit Greenbelt area</b>	<b>CBD area of Johannesburg</b>
Characteristics of the environment		(2)
Air quality		(2)
Day time temperatures (summer)		(2)
Night time temperatures (winter)		(2)
Humidity and precipitation (summer)		(2)

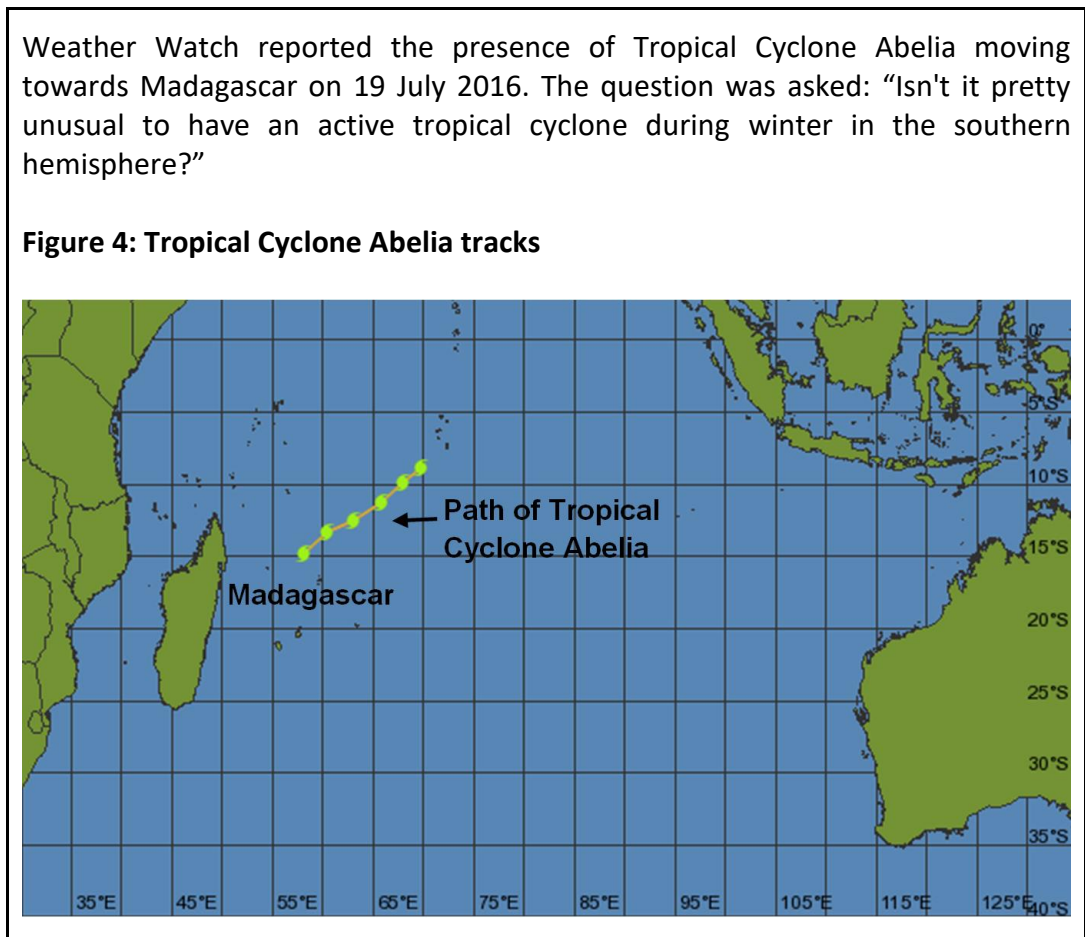
**100 marks**

**SECTION B CLIMATE AND WEATHER AND GEOMORPHOLOGY**

**QUESTION 2 TROPICAL CYCLONES, MID-LATITUDE CYCLONES AND FLUVIAL GEOMORPHOLOGY**

**2.1 Tropical cyclones**

Study the text extract and Figure 4 below.



[Image: Wunderground]

2.1.1 **Select** the correct underlined term(s) in each of the following sentences. Write down only the question number (a) to (e) and the correct term(s) in your Answer Book.

For example: 2.1.1 (a) Spring

- (a) Tropical cyclones normally occur in the southern Indian Ocean during spring / late summer / winter. (2)
- (b) The average atmospheric / range in / sea surface temperatures should be above 26°C for tropical cyclones to form. (2)
- (c) Tropical Cyclones generally move from west to east / south to north / east to west across the Indian Ocean. (2)



- (d) Tropical cyclones are only named when the air pressure has dropped to approximately 860 / 986 / 1005 hPa. (2)
- (e) Tropical cyclones only start to form between 5° north and south of the equator as a result of Buys Ballot's / Coriolis / gradient force. (2)
- 2.1.2 (a) **Suggest** ONE possible reason for the unusual occurrence of Tropical Cyclone Abelia in the southern Indian Ocean in July 2016. (2)
- (b) **Explain** why Tropical Cyclone Abelia dissipated before reaching Madagascar. (4)
- (c) Madagascar has on occasion protected Mozambique and east Africa from the impacts of tropical cyclones. **Account for** this by referring to Figure 4 (page 8). (4)

## 2.2 Mid-latitude Cyclones

Refer to Figure 5, a synoptic weather map, dated 2016-07-20 (page 11) and the weather advisory provided for the period 21 to 25 July 2016 (below).

**Weather advisory: Severe weather conditions predicted over the greater parts of South Africa, 21-25 July 2016**

An upper-air trough has been pushed in from the south-west of the country and this will develop into an intense cut-off low pressure system.

This will produce further **cold and moist conditions** over the south western parts of the country. **Heavy snowfalls** are expected to continue over the interior, mountainous regions and Lesotho; as well as **scattered showers and even thunderstorms** over the Free State, Eastern Cape and KwaZulu-Natal.

The southern parts of the country can expect **high seas and gale force winds**, accompanied by heavy rain and bitterly cold conditions.

[Source: <weathersa.co.za>]

Note: Refer to Figure 5 (page 11).

- 2.2.1 **Name** the high pressure systems labelled A and B. (4)
- 2.2.2 **Identify** the low pressure cell labelled C. (2)
- 2.2.3 (a) **Identify** the weather system labelled D. (2)
- (b) What stage of development has the system labelled D reached? (2)

- 2.2.4 (a) **Explain** the use of the symbol  $\triangle$  at some of the land-based weather stations. (Refer to Figure 5, page 11). (2)
- (b) Copy and complete the table below into your Answer Book. **Compare** the weather conditions being experienced at weather stations labelled X and Y. The weather stations have been enlarged on Figure 5 (page 11).

**Note:** Use sufficient space when compiling your answer table.

Weather	Station X	Station Y
Air temperature		
Cloud cover		
Wind direction		
Wind speed		

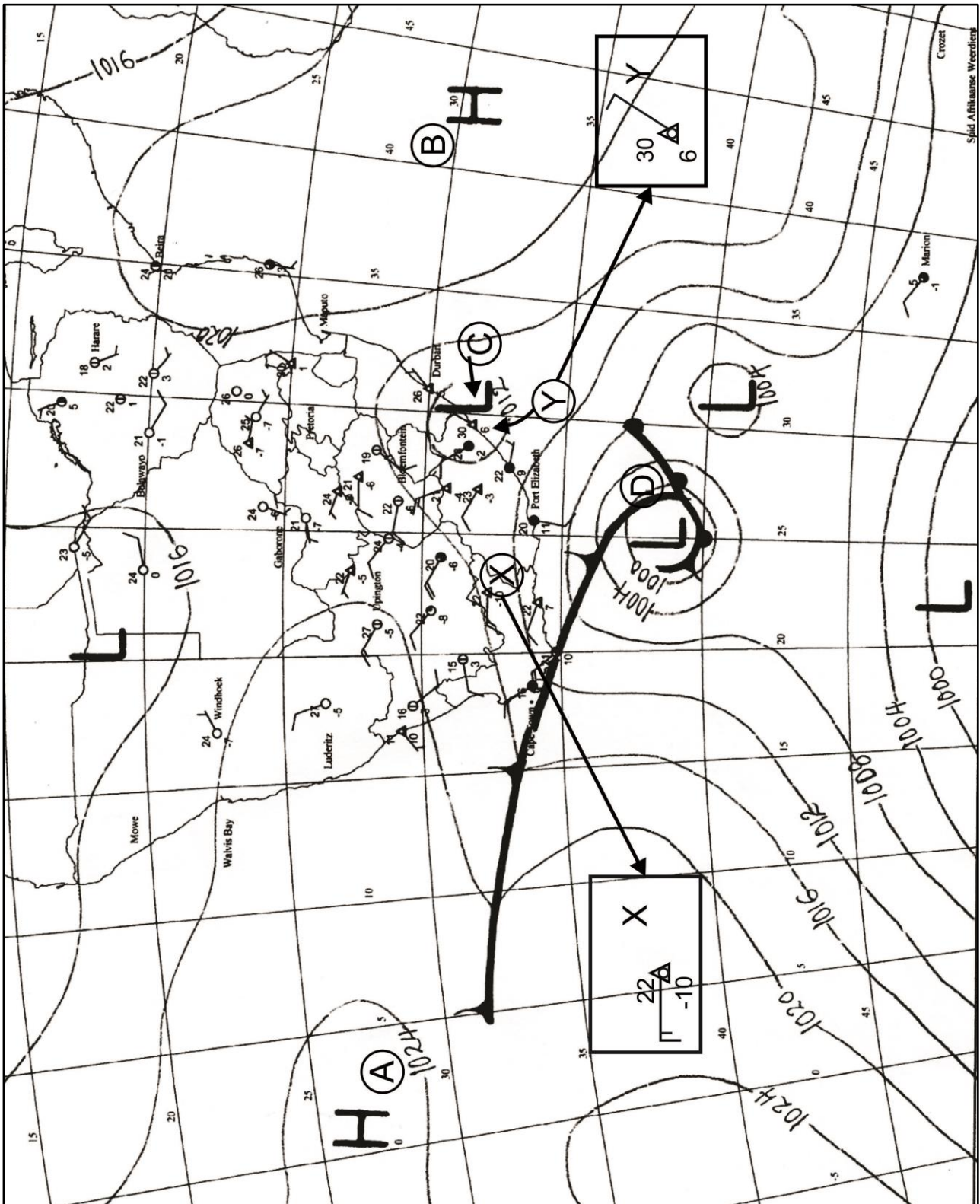
(8)

- 2.2.5 **Describe** the role the high pressure systems labelled A and B (Figure 5) will play in intensifying weather conditions over the following few days. (4)
- 2.2.6 Refer to Figure 5 (page 11) and the weather advisory on page 9.

Prepare a weather warning report in the form of a **mindmap** for the 18:00 eNCA News Bulletin on the Answer Sheet template which has been provided.

- **Describe** the severe weather conditions (highlighted in bold in the weather advisory on page 9) that will be experienced in the various areas mentioned. The areas have been indicated on the map.
- **Suggest** what farmers and tourists can do to remain safe during this period (21–25 July 2016). (12)

Figure 5: Synoptic weather map dated 2016-07-20



[Source: S.A. Weather Service]

### 2.3 Fluvial geomorphology terminology

**Match** the concepts in Column A with the correct statement in Column B. Write **ONLY** the number and the correct letter, for example 2.3.1–A.

Column A		Column B	
2.3.1	Antecedent drainage	A	The area drained by a river system.
2.3.2	Graded river	B	River in a desert originating in an area of high rainfall.
2.3.3	Drainage basin	C	Rivers that only flow after a heavy downpour.
2.3.4	Drainage density	D	The river course is older than the surrounding uplifted younger landscape.
2.3.5	Episodic river	E	The river course develops on an older landscape which has been exposed by erosion.
		F	When a river has sufficient energy to flow and when erosion and deposition rates are in equilibrium.
		G	The ratio between the total length of the streams in the drainage basin and the area of the drainage basin.
		H	The high ground separating one drainage basin from another.

(10)

### 2.4 Fluvial processes

Study Figure 6 (page ii of the Colour Insert). The topographic map extract 2929DD DONNYBROOK, KwaZulu-Natal shows a section of the Luhane River, close to the source in the Marwaqa Mountains. Photographs 3 and 4 (page ii of the Colour Insert), represent fluvial features at Points Q and R respectively.

2.4.1 **Identify** the drainage pattern that has developed in the circled area labelled P on Figure 6. (2)

2.4.2 Refer to Photographs 3 and 4 and Figure 6.

(a) **Identify** the fluvial features shown at each point at Q and at R. (4)

(b) **Explain** how the fluvial feature at Point Q has formed. (4)

2.4.3 Refer to the Answer Sheet. Study Figure 7, a sketch of the fluvial feature at R (on Figure 6) and Photograph 4. **Fill in** your answers on Figure 7 on the Answer Sheet.

(a) **Identify** the type of rock (a) that has formed the feature at R. (2)

(b) **Identify** the fluvial feature that has formed at (b) on Figure 7. (2)

(c) **Explain** the fluvial process/es (c) that has / have formed the feature identified in 2.4.3 (b). (2)

(d) **Show** the direction in which the feature R in the sketch will retreat (indicate in the block (d) using an arrow). (2)

2.4.4 Refer to Figure 6 (page (ii) in the Colour Insert). **Draw** a well-labelled, sketch longitudinal profile of the Luhane River from Point S (Marwaqa Mountains) to Point T (where the Luhane River flows eastwards).

**Fill in** and **label** the following on your sketch longitudinal profile:

- Knickpoints (show TWO)
  - Temporary base-levels (show TWO)
  - Fluvial features at points Q and R
- (8)

2.4.5 Refer to Figure 6 and Photographs 3 and 4 (Colour Insert). **Suggest** TWO pieces of evidence that show rejuvenation has taken place along this section of the Luhane River.

(4)

2.4.6 **Provide** TWO examples of how local climate in Figure 6 has influenced human activities such as settlement and farming. Use map evidence from Figure 6.

(4)

<b>100 marks</b>
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**SECTION C RURAL AND URBAN SETTLEMENT AND ECONOMIC GEOGRAPHY OF SOUTH AFRICA**

**QUESTION 3**

Study Photograph 5 below and Photograph 6 on page (iii) of the Colour Insert. Read the Fact File carefully. Refer to Figure 8 below.

**FACT FILE**

**Sutherland** is classified as a **minor country town** located in the Karoo, Northern Cape. The town is 348 km northeast of Cape Town. The town has a population of around 2 800 people (2011 Census). Major economic activities include tourism and sheep farming. The area includes at least 12 registered Bed and Breakfasts, guesthouses and guest farms. The nearby South African Astronomical Observatory also plays a role in the town's economy and is a driver of tourism to the area. The town also has a number of bars and restaurants that service the tourism sector.

Sutherland has recently gained in popularity, with many Capetonians buying property in the town and many more visiting on weekends and vacations.

Sutherland's arid climate and remote location make its night skies among the world's clearest and darkest. The telescopes of the South African Astronomical Observatory are 18 km from the town.


[Adapted from Wikipedia.com]

**Photograph 5: A view of the main street of Sutherland**



[Examiner's photograph]

**Figure 8: Property for Sale in Sutherland**



R 1 630 000

4 Bedroom House for sale in Sutherland

This Face brick home in this tourism town has it all. The house has 4 big rooms and 2 bathrooms. Lots of built-in cupboards, a fireplace in the lounge and much more.

4
 2
 4
Erf size: 2 716 m<sup>2</sup>



Source: [Property24]

### 3.1 Rural Settlement: Focus on Sutherland, Northern Cape Province

- 3.1.1 **Describe** the situation of Sutherland. (2)
- 3.1.2 Sutherland was originally classified as a central place.
- (a) **Justify** this classification. Refer to the source material provided. (2)
- (b) More recently, Sutherland has been classified as a specialised town. **Suggest** and **explain** why the change in classification of settlement occurred. (4)
- 3.1.3 Sheep farming is the main type of stock farming in the Karoo region of Sutherland. **Classify** this farming activity as extensive or intensive. **Provide** a reason for your classification. (4)
- 3.1.4 **Suggest** TWO challenges sheep farmers are likely to face in the Sutherland area. (4)
- 3.1.5 Sutherland has 'reinvented' itself and become a popular weekend destination. **Provide** TWO pieces of evidence from the Fact File that support this statement. (4)
- 3.1.6 Figure 8 (page 14) features a property advertisement for a home in Sutherland. Property values in the area are increasing. **Explain** why the value and demand for property in Sutherland are increasing. (6)

### 3.2 Urban Structure, Patterns and Settlement Issues

Read the information in the Fact File below, and refer to Photograph 7 on page 16.

#### **FACT FILE: Westonaria Borwa Housing Project, Gauteng**

- Westonaria is a mining town located in the west of Gauteng, 45 km from Johannesburg.
- The town was first proclaimed in 1938 as a result of the multiple gold mining activities which took place in the area.
- The Westonaria Borwa Housing Project consists of subsidised housing\* and social housing schemes to address the housing shortages in this area.
- The development is a true integrated **mixed land-use development**.
- The Project will provide access to secure socio-economic opportunities within walking distance, consequently reducing travel distances and costs.
- The planned **regional shopping mall** and **industrial park** will further serve to decrease the number of unemployed individuals, within and around the **planned community**.
- The project intends to contribute to the regional **decentralisation** of Johannesburg.

[Source: Westonaria Borwa Project]

\***Subsidised housing**: partially funded homes, reducing housing costs and expenses for people in need with low to moderate incomes.

**Photograph 7: Subsidised housing, Borwa residential development, Westonaria, Gauteng**



[Source: Westonaria Borwa Housing Project]

Several words are highlighted in **bold** in the Westonaria Borwa Housing Project Fact File on page (15). **Match** the words in Column A with the correct statement in Column B. Write **ONLY** the number and the correct letter, for example 3.2.1 – A.

Column A		Column B	
3.2.1	Mixed land-use development	A	A commercial shopping complex found close to the residential areas from which customers are drawn.
3.2.2	Regional shopping mall	B	The movement of people and activities towards the outlying areas of an urban settlement.
3.2.3	Industrial Park	C	The movement of people and businesses into a more central area.
3.2.4	Planned community	D	A mixture of rural functions in a single park like area.
3.2.5	Decentralisation	E	An area zoned and planned for the purpose of industrial development. Contains offices and light industry in a secure estate.
		F	Any settlement area that was carefully planned from the start and is typically constructed in a previously undeveloped area. This contrasts with settlements that evolve and grow with time.
		G	A type of urban development that blends residential, commercial, cultural, institutional, or industrial uses. Functions become physically and functionally integrated.
		H	Centrally located shopping complexes within the CBD of an urban area.

(10)



- 3.2.6 **Suggest** why subsidised and social housing projects are important in South Africa's urban areas. (4)
- 3.2.7 According to the Fact File (page 15), the Westonaria Borwa Housing Project is an '*integrated mixed land-use development*'. Do you agree with this classification? **Discuss** with reference to the source material and your own knowledge. (4)
- 3.2.8 (a) **Outline** your understanding of Harris and Ullmans' *Multiple Nuclei Model* of urban structure. (2)
- (b) In what ways does the Westonaria Borwa Housing Project represent the Multiple Nuclei Model? (4)
- 3.2.9 **List** THREE ways in which the Westonaria Borwa Housing Project aims to improve the socio-economic conditions for this mining community. (6)

### 3.3 Gold Mining in South Africa

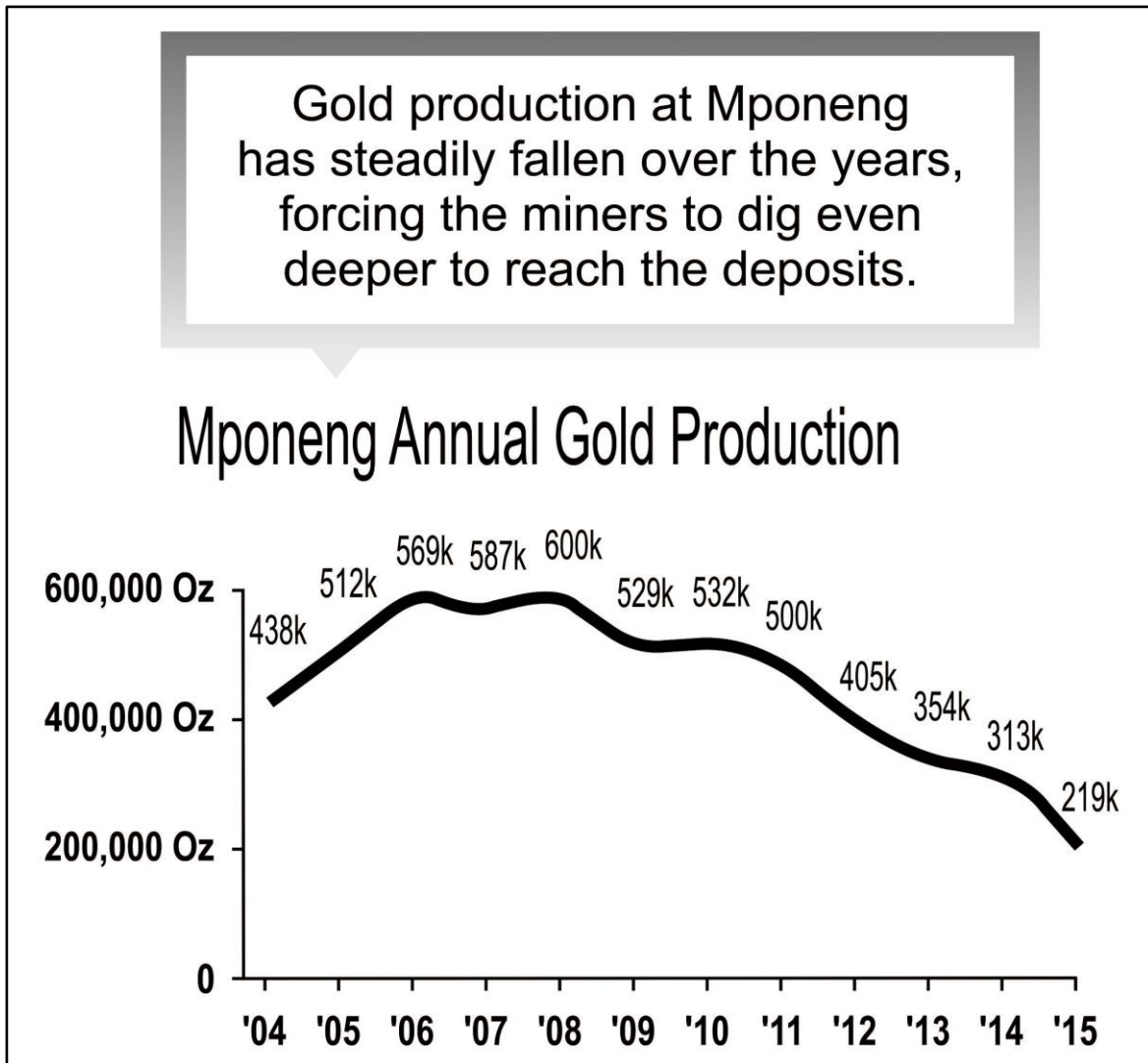
Study Figure 9 (page 18) and the Fact File information below and answer the questions that follow.

#### **FACT FILE: GOLD MINING TRENDS IN SOUTH AFRICA**

- Historical trends show that gold has lost the important place it once had in the South African economy.
- Gold production has dropped by 87% from **1980–2015**.
- For many years, SA was the world's top gold producer; today the country is ranked in 7<sup>th</sup> place.
- Predictions suggest South African gold resources may run out by 2050.
- Mponeng Mine, located on the West Rand of Gauteng Province is currently one of South Africa's richest and deepest gold mines, operating at a depth of 3.4km below the surface.

[Adapted from StatsSA, 2015]

**Figure 9: Mponeng Mine, (West Rand, Gauteng) Annual Gold Production Figures 2004–2015**



[Source: <<http://money.visualcapitalist.com/descend-worlds-deepest-gold-mine/>>]

- 3.3.1 **Describe** the general trend in gold mining production in South Africa for the period 1980–2015. (2)
- 3.3.2 Write a short paragraph in which you **provide** and **explain** possible reasons for the change in gold mining production in South Africa for the period 1980–2015. (6)
- 3.3.3 Refer to Figure 9. **Calculate** the total change in annual gold production at the Mponeng Mine from its year of peak production through to 2015. (2)
- 3.3.4 Mponeng mine is one of the deepest gold mines in the world. **Suggest** and **explain** TWO challenges that deep level mining poses. (4)

### 3.4 Port Elizabeth-Uitenhage Industrial Region, Eastern Cape

The Port-Elizabeth-Uitenhage region of South Africa contributes around 5% of the country's national industrial output. The automotive (car) industry forms a core component of industry in this region.

#### SA Plant rated top factory in VW's Global Network

- Volkswagen's (VW) Uitenhage factory has been rated the top manufacturing plant in the German brand's global production network.
- VW SA says it came out on top thanks to better budgeting and good export numbers to foreign markets in Asia and Europe.
- The Uitenhage factory managed to meet and improve upon various energy consumption, water usage, emissions and waste targets.
- VW SA announced plans of an investment of more than R4,5-billion for new models to be produced in Uitenhage in 2017.
- Research and development into robotic technology will contribute to long-term quality car assembly in the future.



[Source adapted from: SA Car Magazine, May 2016]


- 3.4.1 **Discuss** the importance of the VW factory to the Port Elizabeth-Uitenhage industrial region. (6)
- 3.4.2 **Mention** TWO factors that have led to the recent global success of the VW Uitenhage factory. (4)
- 3.4.3 **Suggest** TWO challenges foreign investors such as Volkswagen may encounter when investing in the Eastern Cape's secondary sector. (4)
- 3.4.4 The article mentions that research and development is going into the use of robotic technology at the VW factory. **Name** the economic sector that research and development into robotic technology would be classified. (2)

- 3.4.5 Read the information below on the Coega Industrial Development Zone and Ngqura deep water port. Answer the questions which follow.

The **Coega** Industrial Development Zone (IDZ) was established in 1999. It is situated within the Nelson Mandela Metropolitan Municipality, 30 km from Port Elizabeth (PE), Eastern Cape. The initiative is a multibillion-Rand industrial development complex customised for heavy, medium and light industries, adjacent to the deep water port of Ngqura.

### COEGA IDZ FAST FACTS

- **Biggest IDZ** in SA at 11 500 ha
- 6443 ha of **prime industrial space** for let
- Within **15 MINUTES OF ROAD, RAIL, AIR AND SEA**
- **20 minute commute** to PE CBD
- 30 minutes away from SA's biggest **wind generating farm**
- **62 142 jobs** have been created since 1999
- **71 445 people** have been **TRAINED AND UPSKILLED**
- Access to 3 major ports – **PE, NGQURA AND EAST LONDON**



**COEGA**  
DEVELOPMENT CORPORATION

[Source adapted from: <Coega.co.za>]

- (a) The Coega IDZ forms a part of the Fish River SDI region. **Suggest** why this Eastern Cape region has been identified as a SDI. (4)
- (b) With reference to the Coega IDZ Fast Facts above, **identify** TWO factors which favour the geographical location of the Coega IDZ. (4)
- (c) **Evaluate** the ways in which the Coega IDZ development has been positive to the Port Elizabeth-Uitenhage region as a whole. (6)

**100 marks**

**Total: 300 marks**