



NATIONAL SENIOR CERTIFICATE EXAMINATION
NOVEMBER 2008

GEOGRAPHY: PAPER I

Time: 3 hours

300 marks

PLEASE READ THE FOLLOWING INSTRUCTIONS CAREFULLY

1. This paper consists of 26 pages and an insert of 4 pages (i – iv). Detach the insert from the middle of the question paper. Please check that your question paper is complete.
 2. Read the questions carefully.
 3. ANSWER THREE QUESTIONS AS FOLLOWS:
One from Section A – **Compulsory question**
One from Section B
One from Section C
 4. Credit will be given for:
 - interpretation and explanation; and
 - evidence of personal observation in the field where this is appropriate to the question.
 5. You are encouraged to use sketch maps, diagrams and other explanatory drawings to support your answers whenever relevant.
 6. Number your answers exactly as the questions are numbered.
 7. Please **circle** the number of each question answered on the back inside flap of your Answer Book.
 8. It is in your own interest to write legibly and to present your work neatly.
 9. There is a GLOSSARY on page 2 explaining what the words in **bold** mean.
-

GLOSSARY

WORD	MEANING
Classify	To divide into groups or types so that things with similar characteristics are in the same group
Comment	To give your opinion or to make a statement about something; to write generally about something
Compare and contrast	Compare: To point out or show both similarities and differences Contrast: To stress the differences, dissimilarities or unlikeness of things
Debate	To discuss a topic giving different views
Define	To give the precise meaning of ...
Demonstrate	To show; to make clear
Describe	To list the main characteristics of something; to give an account of [Note: a diagram or map may be part of a description.]
Design	To plan something, perhaps to draw
Differentiate Distinguish	To see or to understand the difference between one thing and another
Discuss	To examine or to investigate by argument the various aspects of a statement
Estimate	To make an approximate calculation or judgement
Evaluate	To assess, judge, good or bad
Explain	To make clear or plain or to make sure that the reader understands what is being said
Explore	To comment on in detail in order to assess
Flow Diagram	A diagram representing the sequence of actions in a particular process or activity
Identify	To give the essential characteristics of ...
Indicate	To show
Justify	To prove or give reasons or conclusions using logical argument
List	To present a list of names, facts, aspects or items
Mind Map	A diagram showing how different components of a system or topic relate to one another
Name	To state something; to list; to give; to identify; to mention
Outline	To give the main features or general principles of a subject
Plan	To decide in detail what you intend doing
Predict	To say what is expected to happen; to foretell; to say in advance
Prove	To validate by argument or evidence
Review	To consider something carefully to see what is wrong with it or how it could be improved
Select	To choose
Speculate	To say what might happen
State	To present information or details plainly, directly and simply, without discussion
Suggest	To propose an explanation or a solution by way of a plan or a suggestion

SECTION A GEOGRAPHICAL ISSUES

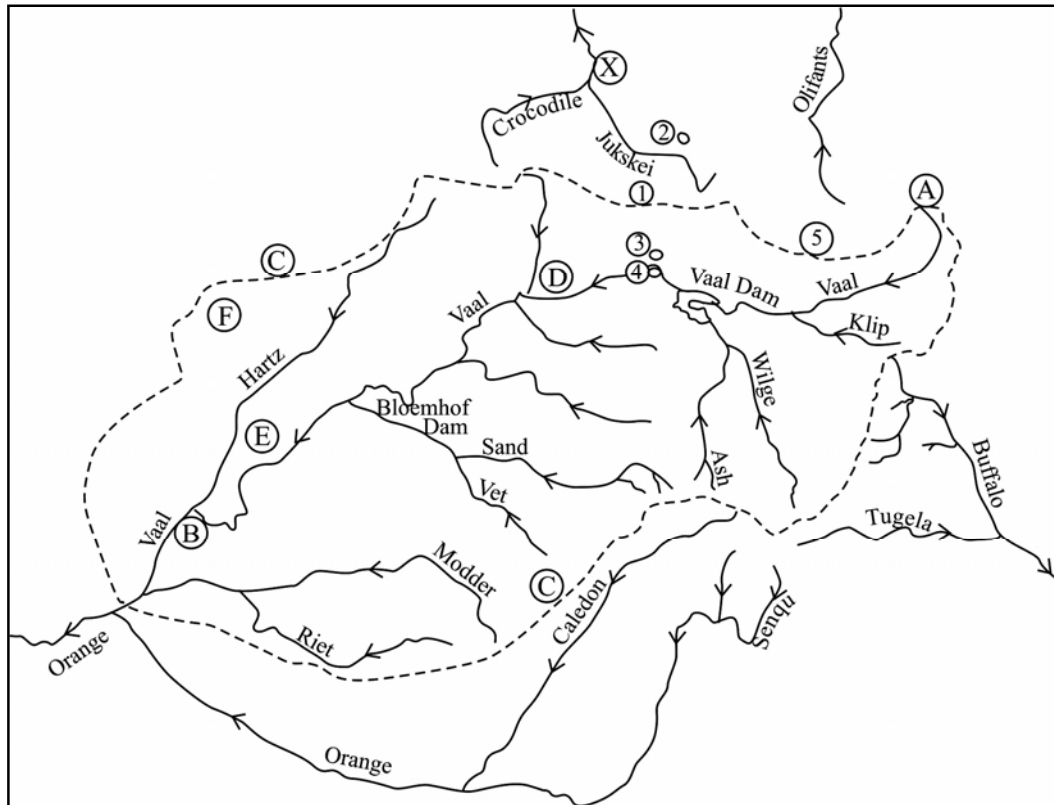
QUESTION 1 GEOGRAPHY OF THE VAAL RIVER BASIN

Note: This question is **compulsory**.

1.1 Geomorphology

Study Figure 1 which is a map of the Vaal River Basin.

Figure 1: The Vaal River Basin



Key

- ① Johannesburg
 - ② Tshwane (Pretoria)
 - ③ Vereeniging/ Vanderbijlpark
 - ④ Sasolburg
- } THE GAUTENG INDUSTRIAL REGION

1.1.1 Fluvial action

(a) TRUE OR FALSE

State whether each of the following statements is TRUE or FALSE.

If false then write out the correct statement.

- (i) Point A is known as the source of the Vaal River.
- (ii) Point B is known as a river confluence.
- (iii) The overall drainage pattern of the Vaal River and its tributaries is rectangular.
- (iv) Line C is known as a watershed.
- (v) The Wilge River is a tributary of the Vaal River.

(12)

- (b) What is the stream order of the Vaal River at B? (2)
- (c) The Vaal River is said to have superimposed its drainage pattern onto the landscape in the Vredefort Dome area (D on Figure 1). **Explain** how a superimposed drainage pattern occurs. (2 x 2 = 4)

1.1.2 Structural landscapes

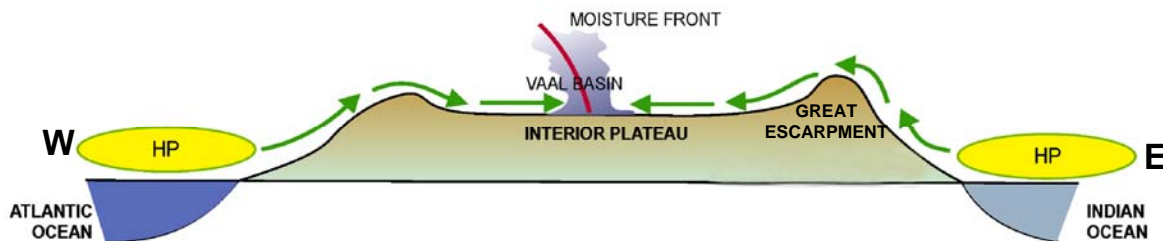
Photograph 1 (page i of Insert) shows the Magaliesberg at Hartbeespoort Dam, also shown at X on Figure 1.

- (a) With reference to Photograph 1:
 - (i) **Identify** the landform shown. (2)
 - (ii) Draw a field sketch of this landform and label the following clearly on the sketch:
 - The resistant rock layer
 - The scarp slope
 - The dip slope
- (4)
[24]

1.2 Climatology

- 1.2.1 During summer, most rainfall over the Vaal River Basin results from moisture front thunderstorms. Redraw the diagram below and use it to **describe** how these thunderstorms develop. (3 x 2 = 6)

Cross section across central South Africa from West to East (approximate)



- 1.2.2 The Vaal River Basin normally experiences very little rainfall during the winter. Using a labelled cross section, **explain** why this is the case. (3 x 2 = 6)
- 1.2.3 The microclimate of Johannesburg. Study Photograph 2 (page i of Insert) which shows the central area of the city of Johannesburg. IEB Geography students, who are conducting research for their Portfolios, measure the temperatures at noon at points X and Y, and find that X is 5 degrees warmer than Y.

- (a) What is the name given to this warmer region in the centre of an urban area? (2)
 - (b) **Describe** FOUR causes of the warmer temperature at X. (4 x 2 = 8)
- [22]

1.3 Settlement

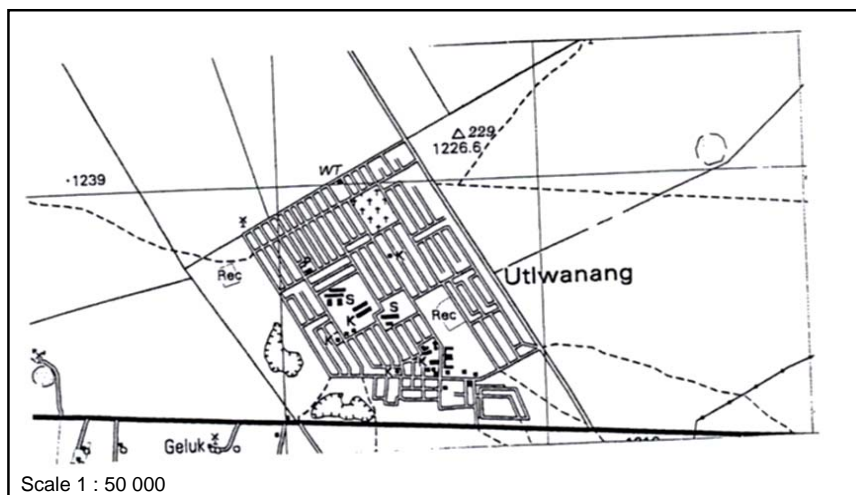
1.3.1 Rural settlement

FACT FILE

In 1935 a number of subsistence farmers were moved off their ancestral lands at E (shown on Figure 1, page 3) to make way for the development of the Vaal-Hartz Irrigation Scheme. They were re-settled in a planned village at Utlwanang at F (also shown on Figure 1).

A map of Utlwanang is below (see Figure 2).

Figure 2: Utlwanang



[Source: *Focus on Map Skills*]

- (a) **Prove** that Utlwanang is a planned village. (2)
- (b) **List TWO** services provided by this village. (2 × 2 = 4)
- (c) The families of the original subsistence farmers have lodged a claim to return to their ancestral lands. These lands are currently under commercial irrigation and they produce vegetables for the Johannesburg market.
Do you think that these families should get their original land back?
Explain your answer. (3 × 2 = 6)

1.3.2 Urban settlement using geographical techniques.

Study Photograph 2 (page i of Insert), which is a high oblique aerial photograph of Johannesburg.

- (a) How can you tell that this is a high oblique aerial photograph? (2)
- (b) Give TWO differences between this photograph and a satellite photograph of the same area. (2 × 2 = 4)
 - (i) **Identify** the land use zone labelled X on the photograph. (2)
 - (ii) **List THREE** characteristics of this land-use zone at X. (3 × 2 = 6)
- (c) Businesses such as the Johannesburg Stock Exchange had their offices at Z, and have left zone X and moved to the suburbs. **Explain** why this move has occurred. (3 × 2 = 6)

[32]

1.4 Economic development in the Gauteng Industrial Region (see Figure 1, page 3)

Read the following quotation and Fact File.

'Gauteng will be a Global City Region whether we like it or not'.

[Gauteng Premier – *Financial Mail* 25/07/06]

FACT FILE

A Global City Region has to have:

- Excellent communications with other leading cities of the world
- The headquarters of numerous multinational companies and a stock exchange which influences the world economy
- An excellent local, regional and international transport network
- High levels of safety and security for all citizens and visitors
- Excellent health-care facilities
- High quality public places, parks and sports facilities
- The presence of world-renowned cultural institutions such as art galleries, theatres and universities.

- 1.4.1 **Describe** FOUR reasons for the development and growth of the Gauteng Industrial Region. (4 × 2 = 8)
- 1.4.2 **Suggest** THREE factors which are contributing to the Gauteng Industrial Region developing into a Global City Region. (3 × 2 = 6)
- 1.4.3 **Explain** the effect that power cuts ('load shedding') by ESKOM could have on the Gauteng Industrial Region and on the sustainability of this developing urban area. (4 × 2 = 8)

[22]

100 marks

SECTION B NATURAL ENVIRONMENTS

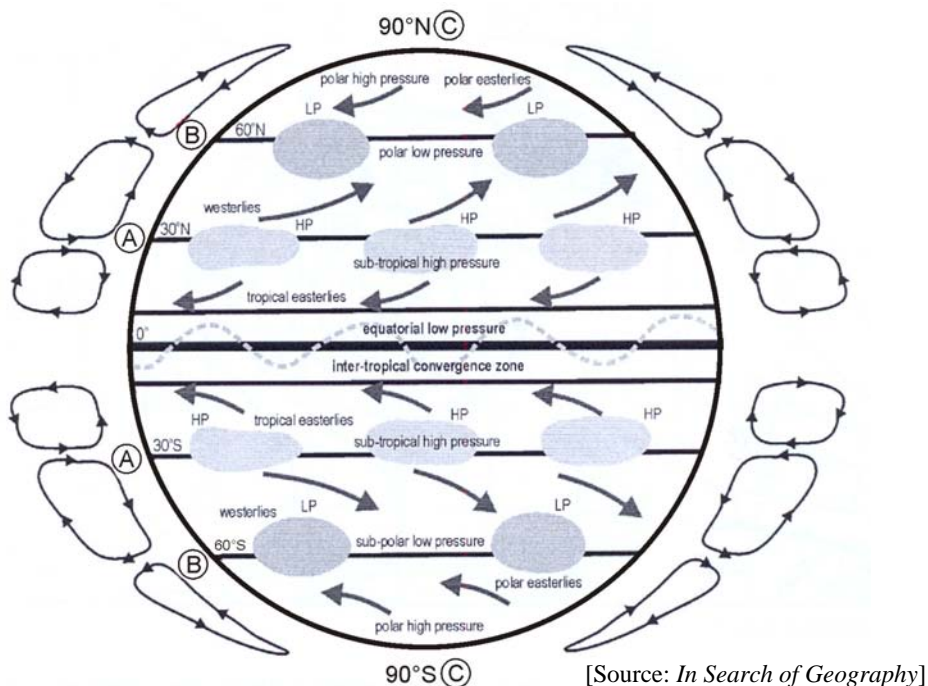
Answer **EITHER** Question 2 **OR** Question 3

QUESTION 2 CLIMATOLOGY, MANAGING CLIMATIC DISASTERS AND GEOMORPHOLOGY

2.1 Tri-cellular model of the circulation of the atmosphere

Study Figure 3.

Figure 3: The tri-cellular model of the circulation of the atmosphere



Read the following and choose the correct term in the brackets. Write down only the correct word next to each letter in your Answer Books.

The Tri-cellular circulation of the atmosphere causes ((a) **local/ planetary**) winds. Because of the high temperatures along the Equator ((b) **high/ low**) pressure develops and air rises. This causes ((c) **convergence/ divergence**) at the surface. The constantly rising air along the Equator causes ((d) **wet/ dry**) conditions in that region.

At A the Subtropical High Pressure Cells are caused by ((e) **descending/ ascending**) air from the Hadley Cell. This causes ((f) **wet/ dry**) conditions at the surface. At B the Sub-Polar Low Pressure is caused by ((g) **high temperatures/ convergence and uplift**). At C the high pressure is caused by ((h) **very cold temperatures/ high temperatures**).

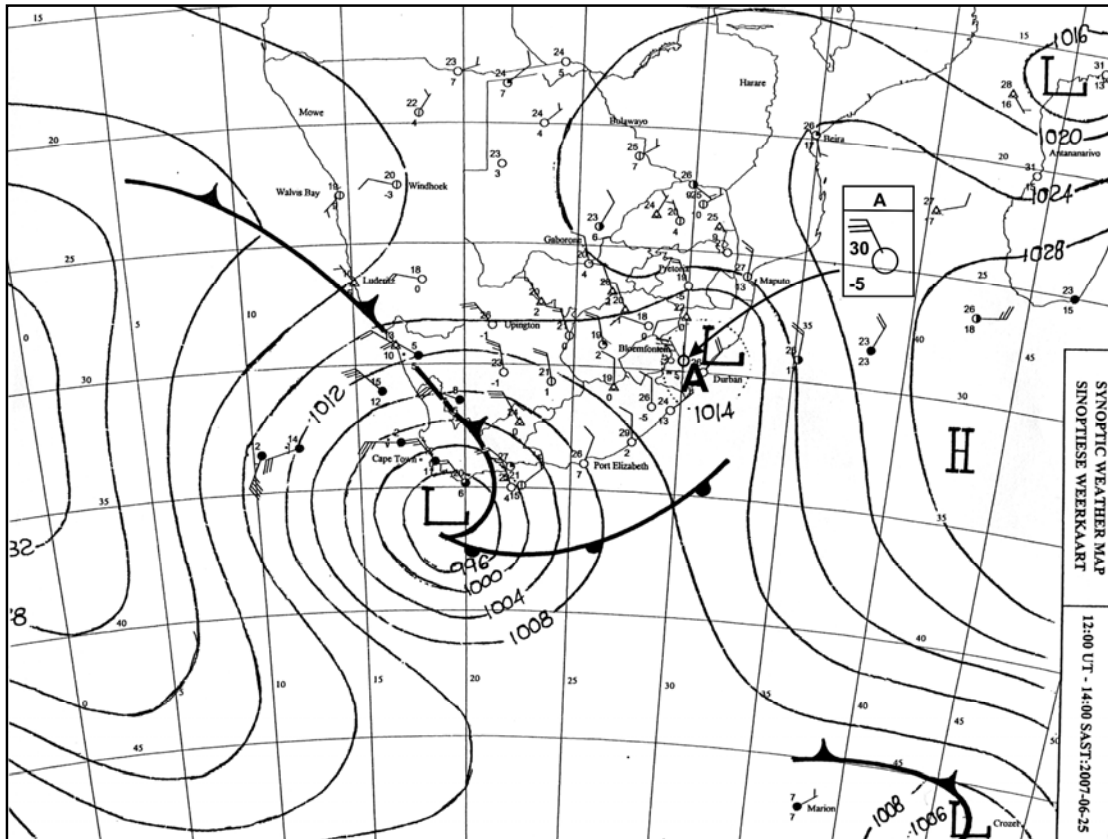
The winds shown on Figure 3 are deflected by ((i) **the Coriolis effect/ the pressure gradient force**) which results from ((j) **the revolution of Earth around the Sun/ the rotation of Earth on its axis**).

(10 × 2 = 20)
[20]

2.2 South African Synoptic Weather Map

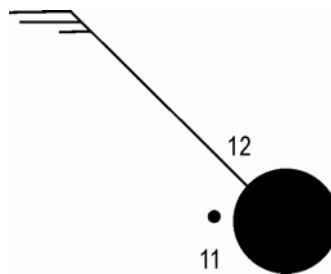
Study Figure 4 which is the Synoptic Weather Map for 2007-06-25.

Figure 4: Synoptic Weather Map 2007-06-25



[Source: SA Weather Services]

2.2.1 Describe the weather conditions being experienced at Cape Town on this date. The weather symbols for Cape Town are as follows:



(6)

2.2.2 Explain the development of the cloud over Cape Town on this date. (2 × 2 = 4)

2.2.3 A Berg Wind is occurring at A. List THREE pieces of evidence which prove that a Berg Wind is being experienced. (3 × 2 = 6)

Note: Weather Station A has been enlarged on Figure 4 to assist you.

- 2.2.4 Read the following headline, which appeared in a local newspaper in the area marked A (on Figure 4), on 25 June 2007.

'Utter devastation' in desolate Midlands

'Early this morning the KwaZulu-Natal Midlands (A on Figure 4) were devastated by some of the worst fires for over 25 years. North-Westerly winds, which reached speeds of up to 100 km/ hr, caused the inferno to spread rapidly across the forests and farmlands of the region.'

[The Witness]

Describe TWO climatic conditions that contributed to conditions which favoured these fires. (2 × 2 = 4)

- 2.2.5 Read the following headline which appeared in the same local newspaper on 26 June 2007, the next day.

From fire to icy cold

'The KwaZulu-Natal Midlands have been hit by the most extreme weather conditions over the past 48 hours as one of the heaviest snowfalls in years covered large parts of the fire-blackened area, yesterday.'

[The Witness]

Draw a simplified, labelled synoptic weather map of southern Africa to **explain** why the weather changed so dramatically from that of the previous day (25 June 2007). (5 × 2 = 10)

- 2.2.6 As a concerned resident of the KwaZulu-Natal Midlands, write a report to your local municipal council in which you:

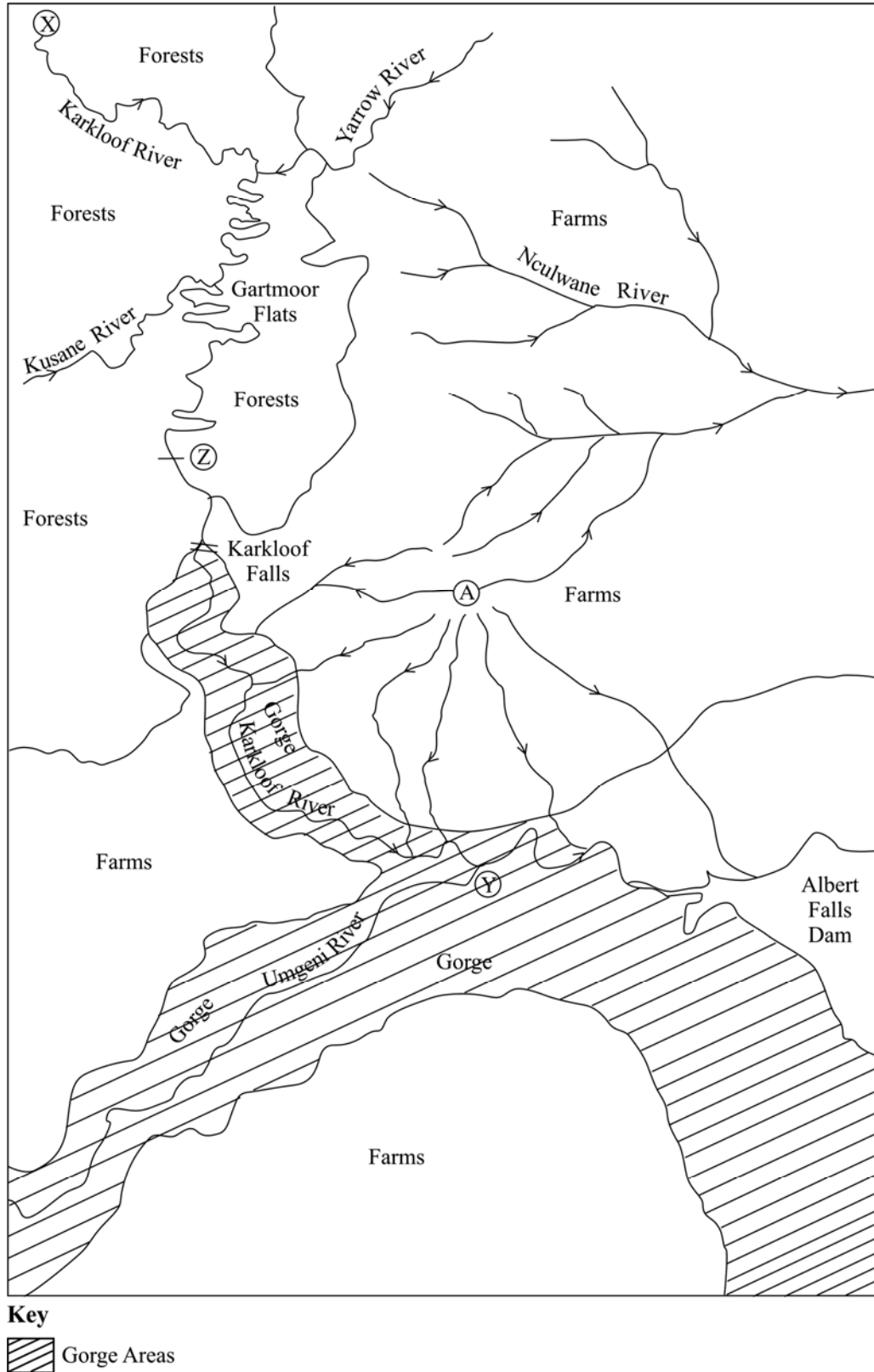
- (a) **explain** why these fires appear to be occurring more frequently on an annual basis in this area and why they appear to be getting worse. (3 × 2 = 6)
- (b) **suggest** what should be done to try to reduce the occurrence of these devastating fires. (2 × 2 = 4)

[40]

2.3 **Fluvial Action**

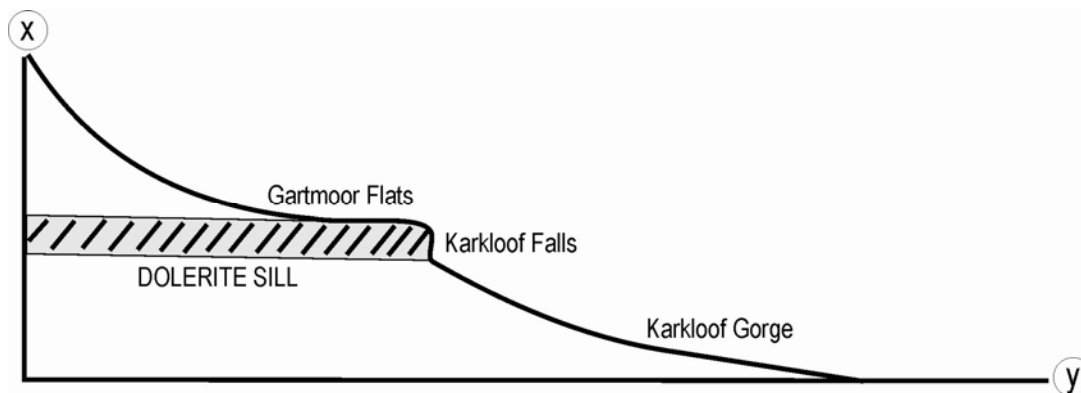
Study Figure 5 which shows the Karkloof River Basin, which is situated in the Midlands of KwaZulu-Natal (see A on Figure 4, the synoptic weather map).

Figure 5: The Karkloof River Basin



The Karkloof River rises in the Karkloof Mountains in the KwaZulu-Natal Midlands and flows through densely forested valleys over the Karkloof Falls into the Karkloof Gorge. It then joins the Umgeni River before entering the Albert Falls Dam.

Below is a longitudinal profile of the Karkloof River from X to Y. Points X and Y are shown on Figure 5 (page 10).



2.3.1 With reference to the above profile, **define**

- (a) longitudinal profile. (3)
 (b) temporary base level. (3)

2.3.2 **Explain** why most rivers usually show an approximately concave longitudinal profile. (2 × 2 = 4)

- (a) **Identify** the drainage pattern at A on Figure 5. (2)
 (b) **Explain** the development of the drainage pattern you have identified in (a), above. (2)

2.3.3 **Describe** the channel characteristics of the Karkloof River as it crosses the Gartmoor Flats (see Figure 5). (2 × 2 = 4)
[18]

2.4 Mass movements and climatic hazards

The fires, described in Question 2.2.4 completely destroyed the forests in the Karkloof River Valley. This was followed by snow and heavy rainfall. This led to a number of major landslides on the slopes of the valley which resulted in tons of rock and mud being deposited in the Karkloof River.

2.4.1 **Describe** how these landslides developed. (2 × 2 = 4)

2.4.2 **Speculate** on the effect that the fires could have on the sustainability of forestry in this area. (3 × 2 = 6)
[10]

2.5 Managing river catchments

The Gartmoor Flats were once a natural wetland. Farmers have drained the wetland and planted the area with maize. Flooding has since become a major problem in the area and the farmers are now planning to build a dam at Z (on Figure 5, pg. 10) in order to try to solve this problem.

You have been asked by these farmers to investigate the problem and to advise them accordingly.

In your report to the farmers you must:

2.5.1 **Explain** TWO causes of the problem (flooding). (2 × 2 = 4)

2.5.2 **Describe** TWO short-term benefits of the proposed dam. (2 × 2 = 4)

2.5.3 **Suggest** TWO long-term problems which the dam could cause. (2 × 2 = 4)

[12]

100 marks

OR QUESTION 3

QUESTION 3 MICROCLIMATES, TROPICAL CYCLONES AND STRUCTURAL LANDSCAPES

3.1 Microclimates

TRUE or FALSE.

State whether each of the following statements is TRUE or FALSE. If false then write out the correct statement

- 3.1.1 An urban area normally has a major influence on the local climate.
- 3.1.2 Thunderstorms are not common over urban areas.
- 3.1.3 Katabatic flow is experienced during the day in local valleys.
- 3.1.4 During winter the north-facing slopes in a local valley in South Africa are warmer than the south-facing slopes.
- 3.1.5 A temperature inversion occurs when the temperature of the atmosphere decreases with altitude.
- 3.1.6 Frost pockets are common in the bottom of local valleys in the middle of the day in summer.

[20]

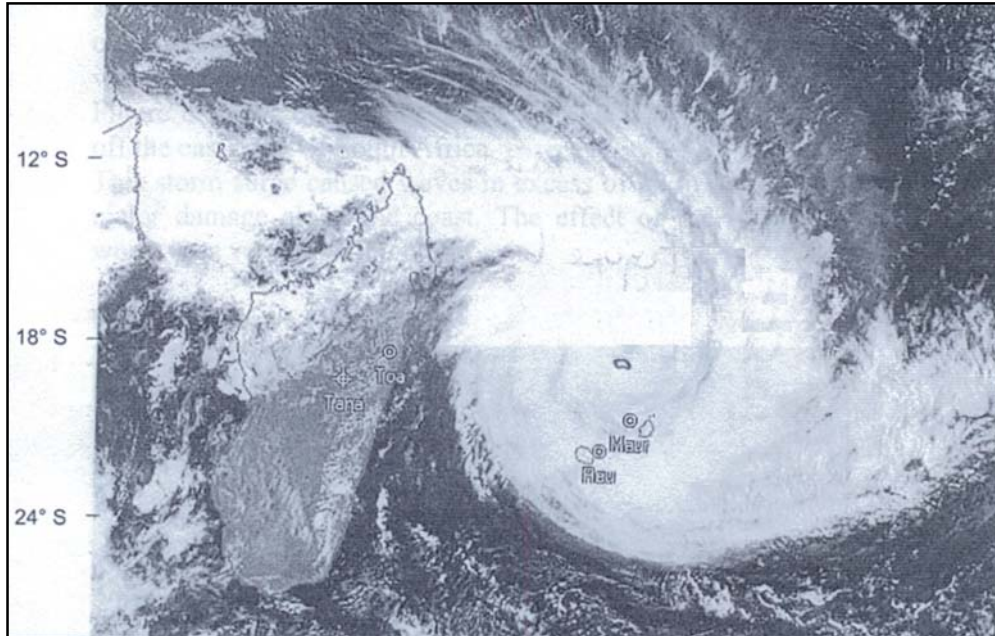
3.2 Tropical cyclones

Study the satellite photograph, Figure 6 on page 14, of Tropical Cyclone Gamede and the map showing the path of Tropical Cyclone Gamede, Figure 7 on page 14.

- 3.2.1 **Describe** FOUR conditions which were necessary for the development of Tropical Cyclone Gamede into a mature tropical cyclone. (4 × 2 = 8)
- 3.2.2 Study Figure 6, the satellite photograph.
- (a) How can you tell, by studying the satellite photograph, that this weather system is a Tropical Cyclone? (2 × 2 = 4)
- (b) What photographic evidence is there that this Tropical Cyclone is situated in the southern hemisphere? (2 × 2 = 4)
- 3.2.3 Study Figure 7, a map showing the path of Tropical Cyclone Gamede.
- (a) **Describe** the path taken by Cyclone Gamede from 20 February to 2 March. (2 × 2 = 4)
- (b) **Explain** the path taken by Cyclone Gamede, from 20 February to 2 March. (3 × 2 = 6)
- 3.2.4 Imagine that you are a climatological adviser to the Mauritian Government, which controls the island of St Brandon as well. On 23 February 2007, when Tropical Storm Gamede is upgraded to a Tropical cyclone, you issue:
- (a) A warning, with reasons, for the evacuation of St Brandon. (3 × 2 = 6)
- (b) An assurance, with reasons, that the people of Mauritius have very little to fear from Gamede. (2 × 2 = 4)

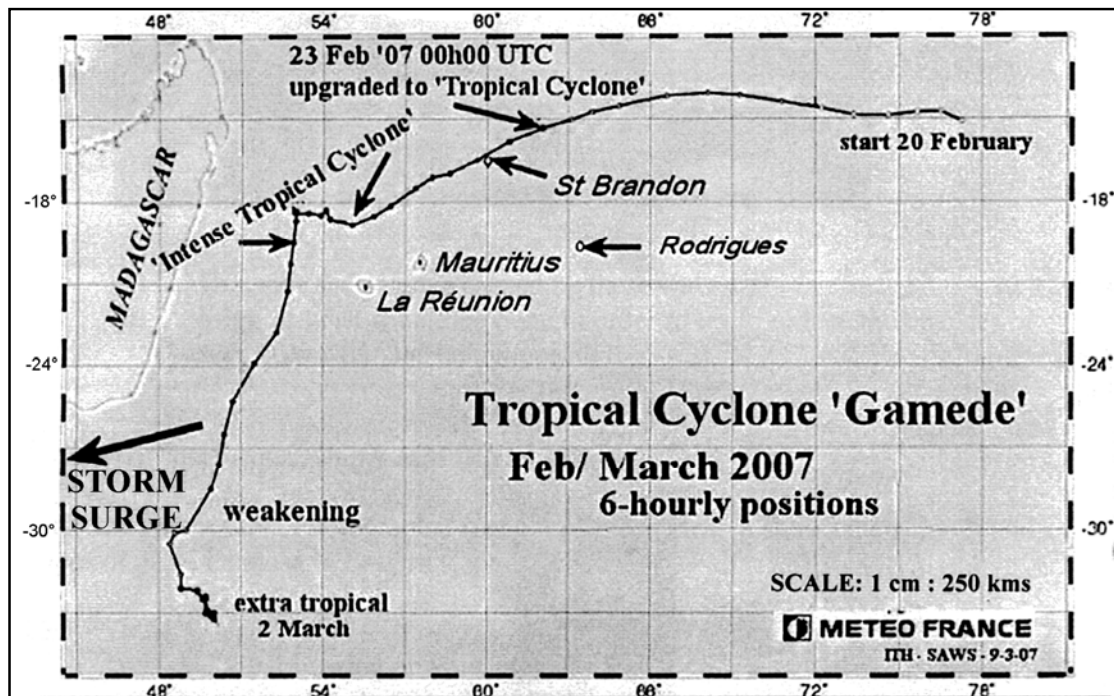
Supply the above warning and assurance.

Figure 6: Satellite Photograph: Tropical Cyclone Gamede



[Source: Internet]

Figure 7: Path of Tropical Cyclone Gamede



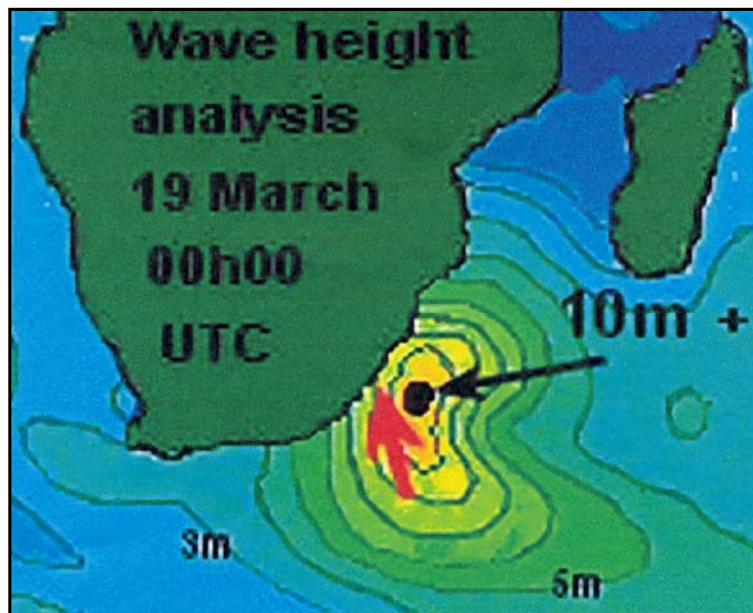
[Source: Internet]

- 3.2.5 Tropical Cyclone Gamede moved to the S.E. of Madagascar and the storm surge, caused by the cyclone, moved in a S.W. direction towards the coast of KwaZulu-Natal. Gamede was followed by Tropical Cyclone Inhlala which followed a similar path to that of Gamede.

Figure 8 shows effects of these two tropical cyclones on the wave heights off the east coast of South Africa.

This storm surge caused waves in excess of 10 m above normal, leading to major damage along the coast. The effect of the storm surge was made worse by a very 'high, high tide'.

Figure 8: Wave Heights



[Source: Internet]

- (a) **Describe** the damage caused by these waves. (2 × 2 = 4)
- (b) **Suggest** what should be done in order to try to reduce the chances of such storm damage being repeated. (2 × 2 = 4)
- [44]**

3.3 Structural landscapes, slopes and fluvial action

Study the photograph, Photograph 3 (page ii of Insert) which shows the summit and slopes of part of a mesa in Eastern Cape.

- 3.3.1 Draw a neat field sketch of this landform (as it appears in the photograph) and label the following on your sketch:
- The resistant rock strata.
 - The FOUR elements of slope which are evident. (5 × 2 = 10)
- 3.3.2 Which of the four elements is most suitable for settlement and farming activities? **Justify** your answer by referring to evidence from the photograph. (3 × 2 = 6)
- 3.3.3 A number of rivers have their origins on the slopes of this mesa. **Describe** how the underlying rock structure and the gradient of these slopes have influenced the drainage pattern evident in Photograph 3. (2 × 2 = 4)

[20]

3.4 Tors

Study Photograph 4 (page ii of Insert) which shows a Tor.

3.4.1 **Name** the type of rock normally associated with Tors. (2)

3.4.2 Using neatly labelled 'before' and 'after' sketches, **explain** the development of a Tor. (5 × 2 = 10)

3.4.3 **Suggest TWO** possible economic uses of such landforms. (2 × 2 = 4)
[16]

100 marks

SECTION C HUMAN ENVIRONMENTS

Answer ONE question from this section, **EITHER** Question 4 **OR** Question 5.

QUESTION 4 FOOD SECURITY, AGRICULTURE, SETTLEMENT AND WATER**4.1 Food security and agriculture**

4.1.1 Study the extract below:

R4,5 million has been set aside for a comprehensive agricultural support programme. Gauteng is home to 20% of the country's population, 96% of which is urbanised. Gauteng contributes 40% to the **GDP** and it has an unemployment rate of 25%. It is in this scenario that urban agriculture has emerged. People are looking for a 'place to stay, not a place to farm'. We have to consider urban **food security** if we are to develop economically. The government has failed to consider how **land reform** impacts on food security and should recognise that there is more demand for land in urban than rural areas.

[The Star, May 2007]

Define what you understand by these highlighted words in the extract:

- | | | |
|-----|---------------|-----|
| (a) | GDP | (2) |
| (b) | food security | (2) |
| (c) | land reform | (2) |

4.1.2 **Suggest** why there is more demand for land in urban rather than rural areas. (2 × 2 = 4)

4.1.3 **Plan** (in the form of a detailed **mind map**) how a community could improve urban food security and in so doing reduce unemployment. (4 × 2 = 8)

4.1.4 **Describe** how an agricultural venture could assist rural communities with food security. You may refer to a case-study that you are familiar with. (3 × 2 = 6)

[24]

4.2 Urban settlement, land use, economic activities and water

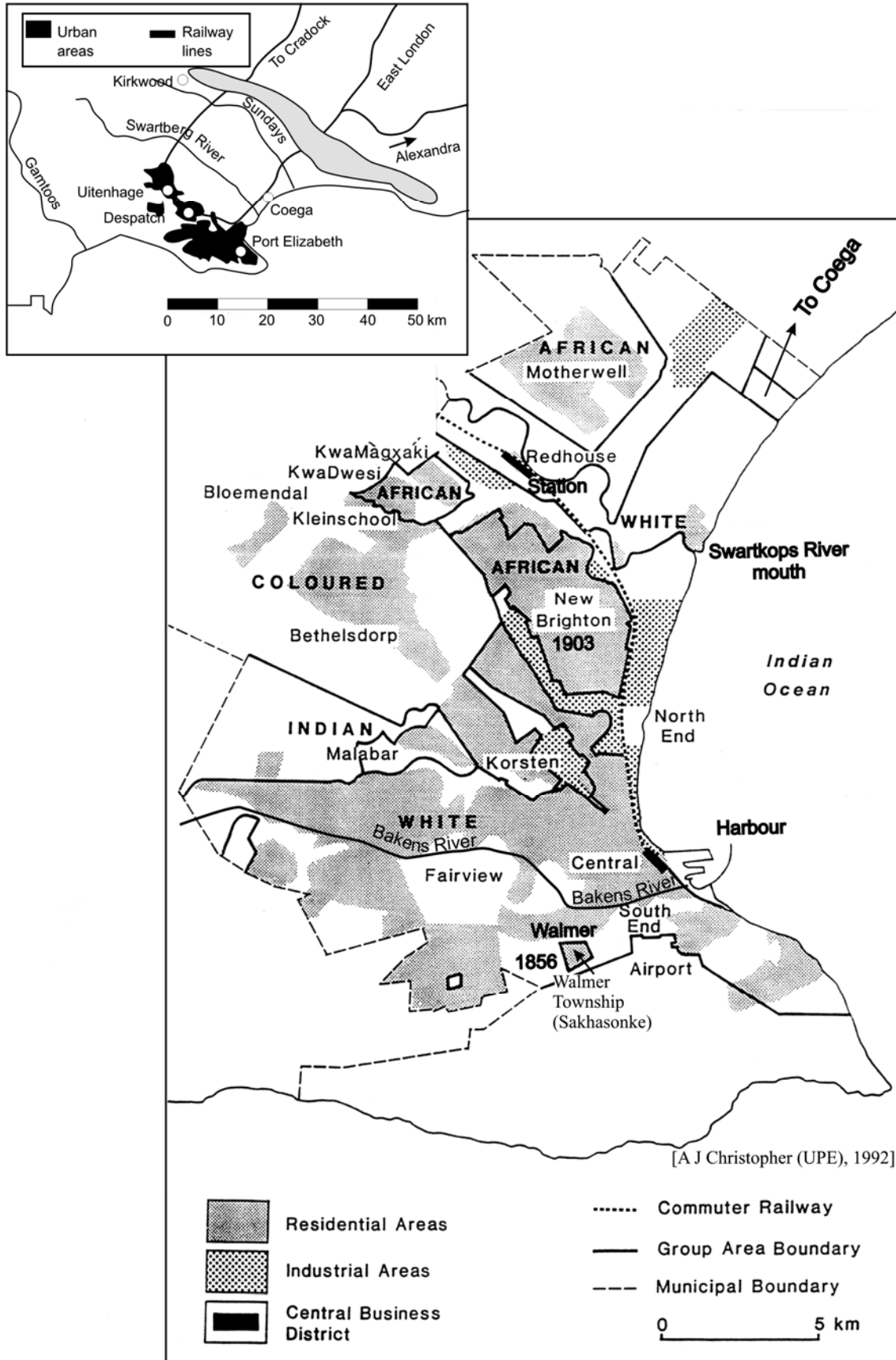
Study Figure 9 on page 19, an old land use map of Port Elizabeth from the Apartheid era, and Photograph 5 (page iii of Insert) a photograph of Sakhasonke Village located on the site of the old caravan park and township in Walmer.

- 4.2.1 **Suggest** THREE reasons that originally favoured the establishment of a settlement where Port Elizabeth is today. (3 × 2 = 6)
- 4.2.2 Using Figure 9 as a guide, **describe** the characteristics of the former Apartheid model of urban structure. (4 × 2 = 8)
- 4.2.3 **Comment** on ONE advantage and ONE disadvantage of the location of the airport in what is now known as the Nelson Mandela Metropole (Port Elizabeth) (see Figure 9). (2 × 2 = 4)
- 4.2.4 The manufacture of motor cars has been part of Port Elizabeth's economic activity since 1924.
- (a) **Classify** this type of economic activity. (2)
- (b) **Suggest** TWO link industries associated with the motor industry. (2)
- 4.2.5 A new industrial hub and harbour (IDZ) has been built 20 km north east of Port Elizabeth, at Coega. **Compare and contrast** this industrial land use of the IDZ at Coega with the old industrial area at North End (Figure 9). (4 × 2 = 8)
- 4.2.6 The Sundays River is a major supplier of water to the greater Port Elizabeth area. **Suggest** how this supply of water could be made sustainable. (3 × 2 = 6)
- 4.2.7 **Explore** how conservation areas like the Addo National Park have boosted tourism in this area and reduced unemployment in Eastern Cape. (3 × 2 = 6)
- 4.2.8 Study the extract below and the table of housing density for residential areas in Port Elizabeth on page 20.

Khanyiswa Madolwana lived in Motherwell for 20 years and travelled to Walmer every day where she worked as a domestic worker. She left home at 05:00 to be at work by 07:30. She earned R900 a month and spent R315 on transport. She now lives in her double storied 46 m² home in Sakhasonke Village with a food garden outside. She leaves home at 07:00 and gets home by 17:00, thereby saving money and spending quality time with her family.

[Urban Green File, February 2007]

Figure 9: Port Elizabeth: Land Use



Note: Old map from the apartheid era

Density comparison	Motherwell	Sakhasonke
	Low density (conventional)	Medium density (high)
Area of settlement (m ²)	44 900	44 900
Number of houses	126	337
Average size of plot (m ²)	216	73
Gross residential density (units/ ha)	28	75
Average house size (m ²)	35	46
Coverage	16%	32%
Population potential (five people/ unit)	630	1 658

- (a) **Estimate** the straight line distance (km) from Redhouse station, south of Motherwell, to Walmer township (similar to Khanyiswa's former daily journey) on Figure 9. (2)
- (b) **Compare and contrast** Sakhasonke's medium/ high density design to the 'one house per stand' model in Motherwell. Present your answer in the form of a table, as shown below.

Motherwell	Sakhasonke

(2 × 2 = 4)

- (c) **Demonstrate** that densification and mixed land use (post modernism) could make cities more sustainable and thereby improve the lifestyle of people like Khanyiswa. (2 × 2 = 4)

[52]

4.3 **Terminology and concepts**

Select the appropriate Geographical word for each of the statements below. Write down only the question number and the correct word.

- 4.3.1 Initiatives helping farmers gain access to land for farming (land redistribution/ land reclamation).
- 4.3.2 The nuclear power station near Cape Town is known as (Saldanha/ Koeberg).
- 4.3.3 The difference between the value of a country's visible exports and its visible imports is known as a country's (balance of trade/ balance of payments).
- 4.3.4 Forestry is an example of a (quaternary/ primary) economic activity.
- 4.3.5 An (aquifer/ aquiclude) is a rock feature that holds water underground.

(5 × 2 = 10)

[10]

4.4 Rural settlement

Study Photograph 6 (page iv of Insert) a rural settlement in South Africa.

Write a short essay of 1 to 2 pages using the following sub-headings:

- **Describe** the site and appearance of this settlement.
- **Comment** on the economy the people in this settlement could be involved in and **suggest** how rural depopulation could impact on this economy.
- **Explore** possible ways in which the inhabitants could develop this settlement in a sustainable way.

NOTE: You must use appropriate sub-headings.

(7 × 2 = 14)

[14]

100 marks

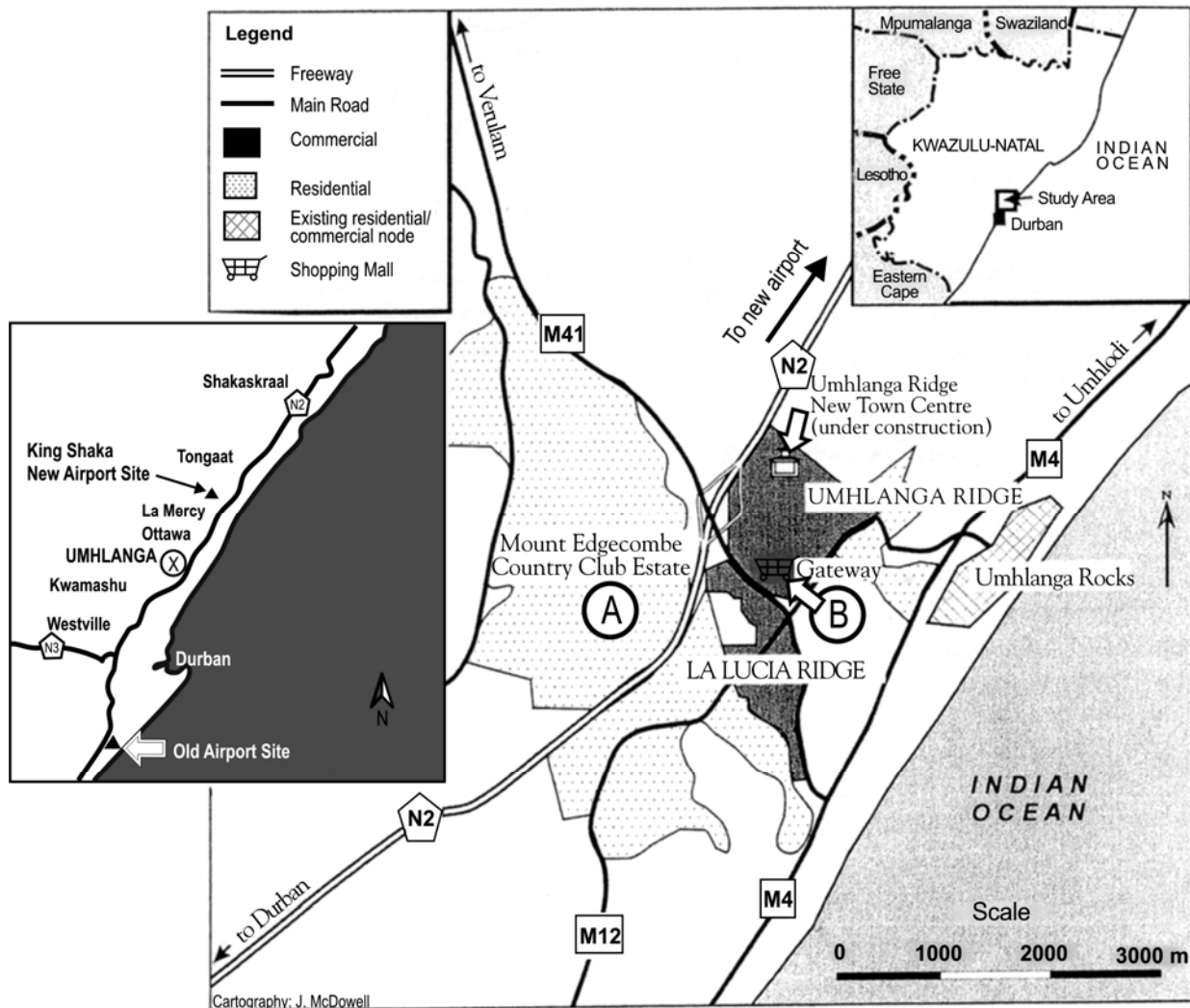
OR QUESTION 5

QUESTION 5

5.1 Urban land use, settlement and development

The La Lucia-Umhlanga Ridge corridor development, north of Durban, has been called a 'new town', and an 'edge city', incorporating a 'green lung'. Study the location map of this area in Figure 10.

Figure 10: La Lucia, Umhlanga Ridge



5.1.1 **Define** what you understand by:

- (a) 'new town' (2)
- (b) 'green lung' (2)

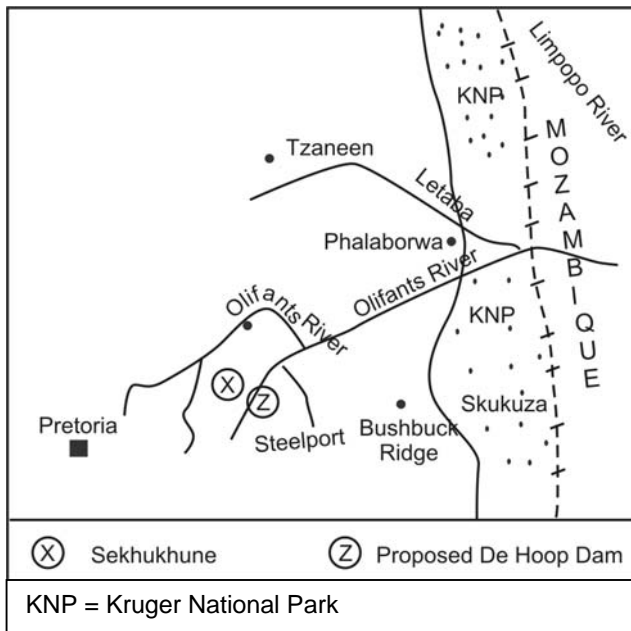
5.1.2 What do you understand by an 'edge city'? You may refer to other areas you have studied as possible examples. (2 × 2 = 4)

- 5.1.3 The Mount Edgecombe Country Club Estate (A on the map), a gated suburb, was built along this development corridor. **Describe** TWO advantages and TWO disadvantages of living in this estate. (4 × 2 = 8)
- 5.1.4 (a) With reference to Gateway, a large planned regional shopping centre, (B on the map) **comment** on its sphere of influence and **explain** how its location has contributed to its success. (3 × 2 = 6)
- (b) **State** a similarity and a difference between a planned regional shopping centre, e.g. Gateway and a large informal commercial trading area, e.g. Warwick Junction in Durban. You may refer to other examples you are familiar with. (2 × 2 = 4)
- 5.1.5 The new international airport, King Shaka/ La Mercy, is being built 50 km north of Durban (See Figure 10). It will have a capacity of 7.5 million passengers a year and will be completed in time for the 2010 Soccer World Cup. **Suggest** FOUR factors that urban planners need to consider when siting a large new international airport. (4 × 2 = 8)
- [34]**

5.2 **River systems, agriculture and settlement**

Study the sketch location map (Figure 11) below and the fact file on the proposed De Hoop Dam (page 24).

Figure 11: Proposed De Hoop Dam



FACT FILE

- There are already 30 dams in the Olifants (Lepelle) River's **catchment area** in Mpumalanga/ Limpopo provinces.
- The Olifants River stopped flowing for 78 days in 2005.
- After an **E I A** it was decided that the De Hoop Dam with its 81 metre high wall would be built on the Steelpoort River, a tributary of the Olifants River.
- The dam would cover 1 690 hectares and its 342 m³ would provide water for new platinum mines, a golf estate, sugar cane plantations and to many **subsistence** rural communities in the area.
- Water to the Kruger National Park would be diminished.
- The dam will be completed in 2010 and the pipeline network by 2017.

5.2.1 **Define** these words from the Fact File (indicated in bold):

- | | |
|---------------------------|-----|
| (a) catchment area | (2) |
| (b) E I A | (2) |
| (c) subsistence (farming) | (2) |

5.2.2 **Outline** how the building of this new dam will impact on the local subsistence farming communities. (2 × 2 = 4)

5.2.3 **State** your opinion on whether a golf estate should be developed in this area or not. **Support** your opinion with FOUR valid reasons. (4 × 2 = 8)

5.2.4 **Debate** the issue of sustainability of building large dams in South Africa as opposed to small scale irrigation schemes. You may quote examples you have studied to justify your answer. (4 × 2 = 8)
[26]

5.3 **True and False**

State whether each of the following statements is TRUE or FALSE. If false, write out the correct statement.

- 5.3.1 In 2007, the secondary economic sector in South Africa contributed less than the primary sector.
- 5.3.2 Most of South Africa's manufactured goods are produced in the PWV.
- 5.3.3 Tourism is classified as a tertiary economic activity.
- 5.3.4 Coal is imported through the harbour of Richards Bay.
- 5.3.5 Most of South Africa's power is produced by nuclear power stations.

[16]

5.4 Urban and rural settlements

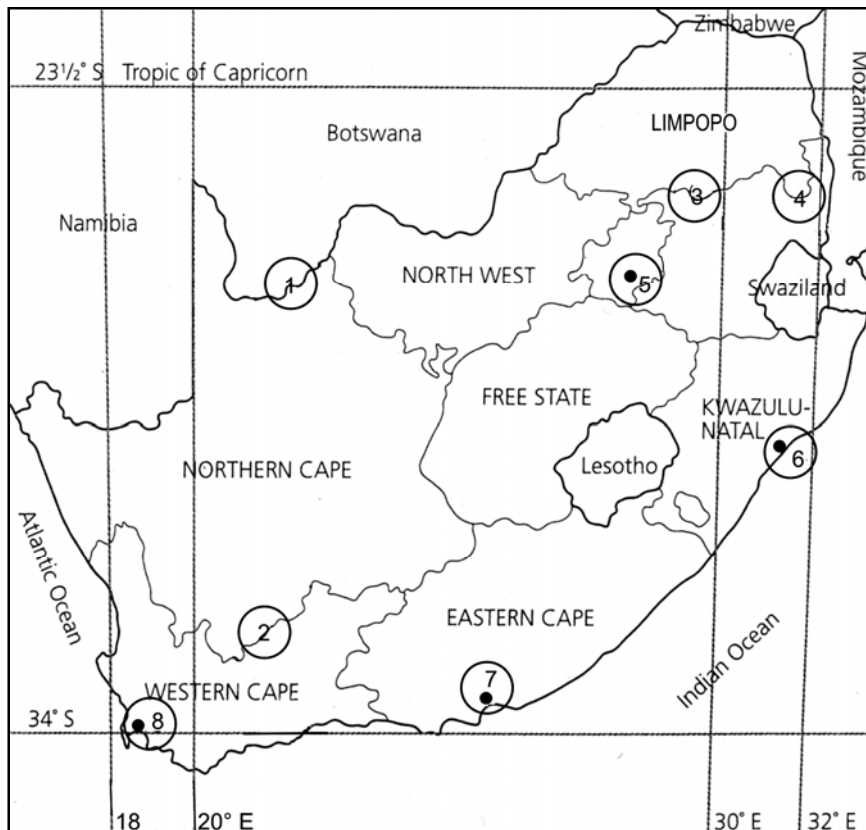
In 2001 the government formally launched initiatives to overcome poverty and underdevelopment, in line with Agenda 21 principles. This was to fast track service delivery and make a better place for all South African people.

[Business Report, 12th October, 2007]

The Minister of Provincial and Local government, Sydney Mufamadi, proposed the following Poverty Nodes, which happen to be home to 10 million South African people.

Study Figure 12 map illustrating some of these poverty nodes.

Figure 12: Selection of Poverty Nodes



Rural Poverty Nodes	Urban Poverty Nodes
1. Kgalagadi	5. Alexandra
2. Central Karoo	6. INK (Inanda Ntuzuma Kwamashu)
3. Sekhukhune	7. Motherwell
4. Bushbuckridge	8. Khayelitsha

[Adapted from map published in *Business Report*, Friday 12 October, 2007]

[Note: Node = point/ place/ area]

- 5.4.1 **Suggest** examples of poverty and underdevelopment in South Africa that the government wishes to address. (4 × 2 = 8)
- 5.4.2 **Explain** the purposes of Agenda 21 principles. (2 × 2 = 4)
- 5.4.3 Using a **mind map**, suggest a strategy to improve the quality of life in either a rural OR an urban area that you have studied. It could be one of the urban or rural poverty nodes shown in Figure 12. (6 × 2 = 12)
- [24]**

100 marks

Total: 300 marks