



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

NATIONAL SENIOR CERTIFICATE

GRADE 12

GEOGRAPHY P1

FEBRUARY/MARCH 2013

MARKS: 300

TIME: 3 hours

This question paper consists of 11 pages and a 12-page annexure.



INSTRUCTIONS AND INFORMATION

1. This question paper consists of FOUR questions.
2. Answer ANY THREE questions of 100 marks each.
3. **For the paragraph style questions you may refer to ONE idea which you must discuss in depth OR to different ideas which you must discuss in less depth.**
4. ALL diagrams are included in the ANNEXURE.
5. Number ALL your answers in the CENTRE of the line.
6. Leave a line between subsections of questions answered.
7. Start EACH question at the top of a NEW page.
8. Number the answers correctly according to the numbering system used in this question paper.
9. Do NOT write in the margins of your ANSWER BOOK.
10. ENCIRCLE the numbers of the questions that you have answered on the front page of your ANSWER BOOK.
11. Where possible, illustrate your answers with labelled diagrams.
12. Write clearly and legibly.

SECTION A: CLIMATE AND WEATHER, FLUVIAL PROCESSES AND STRUCTURAL LANDFORMS

Answer at least ONE question from this section.

QUESTION 1

- 1.1 Refer to FIGURE 1.1 which shows global pressure belts and winds.
- 1.1.1 Name the pressure belt labelled **A**. (1 x 2) (2)
- 1.1.2 Which major cyclone (low pressure) is driven by the westerly winds (storm track) at **B**. (1 x 2) (2)
- 1.1.3 State the force that deflects the southeast trade winds to the left in the Southern Hemisphere. (1 x 2) (2)
- 1.1.4 What type of pressure is experienced in area **C**? (1 x 2) (2)
- 1.1.5 The high cloud density in area **A** is due to (convergence/divergence) of moist air. (1 x 2) (2)
- 1.2 Refer to FIGURE 1.2 which shows a drainage basin run-off system and complete the statements below.
- 1.2.1 The process where water changes into water vapour (**A**) is known as ...
- 1.2.2 The place where two or more streams meet (**B**) in a drainage basin is called a/an ...
- 1.2.3 The area where a river originates (**C**) is called its ...
- 1.2.4 The process where water seeps into the ground (**D**) is called ...
- 1.2.5 A high-lying area (**E**) that separates two streams in the same drainage basin is called a/an ... (5 x 2) (10)
- 1.3 Study the synoptic weather map and extract on floods in FIGURE 1.3 before answering the questions below.
- 1.3.1 Identify the pressure systems **X** and **Y** on the synoptic weather map as either a high- or a low-pressure system. (2 x 2) (4)
- 1.3.2 Give evidence to support the statement that this is a summer map. (1 x 2) (2)
- 1.3.3 Identify the depression that is affecting the weather of Limpopo and Mpumalanga along the east coast of South Africa. (1 x 2) (2)



- 1.3.4 How many tropical cyclones occurred before Funso in this area? Give a reason for your answer. (2 x 2) (4)
- 1.3.5 In which ocean did Funso originate? (1 x 2) (2)
- 1.3.6 The economic impact of floods associated with tropical cyclones is great. Write a paragraph (approximately 12 lines) explaining some of the economic effects of flooding on Mpumalanga/Limpopo. (6 x 2) (12)
- 1.4 FIGURE 1.4 shows a settlement built in a river valley.
- 1.4.1 Explain the term *microclimate*. (1 x 2) (2)
- 1.4.2 State ONE human activity that would have altered the microclimate of the valley. (1 x 2) (2)
- 1.4.3 Give a reason why the suburb labelled **A** was built along the north-facing slope. (1 x 2) (2)
- 1.4.4 Name and explain the origin of the wind labelled **B**. (2 x 2) (4)
- 1.4.5 Why would there be a high level of air pollution in the valley on a winter's morning? (2 x 2) (4)
- 1.5 Refer to FIGURE 1.5 which illustrates a drainage basin.
- 1.5.1 Define the term *drainage basin*. (1 x 2) (2)
- 1.5.2 Name ONE source of water for a drainage basin. (1 x 2) (2)
- 1.5.3 Some drainage patterns have a high density. How does climate influence the stream density of rivers that flow along the east coast of South Africa? (2 x 2) (4)
- 1.5.4 Give THREE reasons why drainage basins are useful to people. (3 x 2) (6)
- 1.5.5 Many human activities are destroying our drainage basins. Write a paragraph (approximately 12 lines) giving suggestions on how we can take better care of our drainage basins. (6 x 2) (12)



1.6 Refer to FIGURE 1.6 based on river profiles.

- | | | | |
|-------|--|---------|--------------|
| 1.6.1 | Identify the type of river profile labelled A . | (1 x 2) | (2) |
| 1.6.2 | What evidence suggests that A is a graded profile? | (1 x 2) | (2) |
| 1.6.3 | What forms the permanent base level for the river? | (1 x 2) | (2) |
| 1.6.4 | Describe the difference between the shape of the valley at B and the shape of the valley at C . | (2 x 2) | (4) |
| 1.6.5 | Give reasons for the difference in the shape of the valley at B and the shape of the valley at C . | (2 x 2) | (4) |
| | | | [100] |

QUESTION 2

2.1 Refer to the cross section of a mid-latitude cyclone in FIGURE 2.1.

- | | | | |
|-------|--|---------|-----|
| 2.1.1 | Name the cloud type labelled C . | (1 x 2) | (2) |
| 2.1.2 | Identify the front labelled D . | (1 x 2) | (2) |
| 2.1.3 | Where is the air warmer, at A or at B ? | (1 x 2) | (2) |
| 2.1.4 | Would heavier rain be experienced at X or at Y ? | (1 x 2) | (2) |
| 2.1.5 | Which ONE, the warm front or the cold front, has a steeper gradient? | (1 x 2) | (2) |

2.2 Study the structural landscape in FIGURE 2.2. Match the letters on the FIGURE with the labels below. Write only the letter (A–E) next to the question number (2.2.1–2.2.5) in the ANSWER BOOK.

- | | | | |
|-------|-----------|---------|------|
| 2.2.1 | Cliff | | |
| 2.2.2 | Pediplain | | |
| 2.2.3 | Mesa | | |
| 2.2.4 | Butte | | |
| 2.2.5 | Talus | (5 x 2) | (10) |

2.3 Study the sketches in FIGURE 2.3 which show the daily changes in the intensity of an urban heat island.

- | | | | |
|-------|--|---------|-----|
| 2.3.1 | What is an <i>urban heat island</i> ? | (1 x 2) | (2) |
| 2.3.2 | State TWO factors that cause urban heat islands. | (2 x 2) | (4) |



- 2.3.3 Differentiate between the shape of the heat island during the day and the shape of the heat island at night. (2 x 2) (4)
- 2.3.4 Explain why urban areas have more clouds than rural areas. (2 x 2) (4)
- 2.3.5 Write a paragraph (approximately 12 lines) to discuss the impact of heat islands on people. (6 x 2) (12)
- 2.4 Refer to the sketch in FIGURE 2.4 based on the changing position of the ITCZ.
- 2.4.1 ITCZ is the abbreviation for ... (1 x 2) (2)
- 2.4.2 Explain the meaning of the term *ITCZ*. (1 x 2) (2)
- 2.4.3 State and account (give a reason) for the position of the ITCZ in July. (2 x 2) (4)
- 2.4.4 Name any ONE weather condition associated with the ITCZ. (1 x 2) (2)
- 2.4.5 Explain the unusual shape of the ITCZ over Africa in January. (2 x 2) (4)
- 2.5 Refer to the flood hydrograph in FIGURE 2.5.
- 2.5.1 Explain the term *flood hydrograph*. (1 x 2) (2)
- 2.5.2 Define the term *lag time*. (1 x 2) (2)
- 2.5.3 Identify TWO differences observed between the hydrograph of the urban drainage basin and the hydrograph of the natural drainage basin. (2 x 2) (4)
- 2.5.4 What is the value of flood hydrographs for humans? (2 x 2) (4)
- 2.5.5 Write a paragraph (approximately 12 lines) to explain the reasons for the difference in peak flow experienced in the urban drainage basin and in the natural drainage basin. (6 x 2) (12)
- 2.6 Refer to the fluvial features in FIGURE 2.6. These features are found in different courses of the river.
- 2.6.1 Identify the feature labelled **B**. (1 x 2) (2)
- 2.6.2 State ONE condition necessary for the formation of feature **B**. (1 x 2) (2)
- 2.6.3 What is the value of feature **B** for humankind? (2 x 2) (4)
- 2.6.4 Explain the development of feature **A**. (2 x 2) (4)
- 2.6.5 State in which course of the river features **A** and **B** are found. (2 x 2) (4)

[100]

SECTION B: PEOPLE AND PLACES: RURAL AND URBAN SETTLEMENTS, PEOPLE AND THEIR NEEDS

Answer at least ONE question from this section.

QUESTION 3

- 3.1 Study FIGURE 3.1 which illustrates street patterns. Match the street patterns in the FIGURE with the statements below. Write only the letter (A–C) next to the question number (3.1.1–3.1.5).

- 3.1.1 A street pattern that allows for the easy flow of traffic
- 3.1.2 Streets that radiate away from a central point
- 3.1.3 A street pattern characteristic of the CBD of many South African cities
- 3.1.4 Streets mainly intersect at right angles in this street pattern
- 3.1.5 Streets do not link up easily in this pattern causing people to get lost (5 x 2) (10)

- 3.2 Choose a description from COLUMN B that matches a concept in COLUMN A. Write only the letter (A–F) next to the question number (3.2.1–3.2.5) in the ANSWER BOOK.

COLUMN A		COLUMN B
3.2.1	GEAR	A exchange of goods and money between countries
3.2.2	Multi-national	B sector that provides a service
3.2.3	Trade	C growth, employment and redistribution strategy
3.2.4	Tertiary sector	D an area identified for economic expansion
3.2.5	Growth point	E companies that have branches in different countries
		F processing raw materials

(5 x 2) (10)

- 3.3 Study FIGURE 3.3 which shows a type of rural settlement.

- 3.3.1 Name the type of rural settlement shown in the photograph. (1 x 2) (2)
- 3.3.2 State TWO advantages associated with these rural settlements. (2 x 2) (4)



- 3.3.3 State TWO factors that could have influenced the choice of site of this settlement. (2 x 2) (4)
- 3.3.4 In spite of modern technology, pests are still a huge problem for farmers. Explain how pests affect crop production. (2 x 2) (4)
- 3.3.5 Agricultural production makes an important contribution to the South African economy. Write a paragraph (approximately 12 lines) on food security, evaluating the importance of promoting agricultural development in South Africa as opposed to importing agricultural products. (6 x 2) (12)
- 3.4 Refer to FIGURE 3.4 that shows rural-urban migration and its impact on South Africa.
- 3.4.1 Define the term *urbanisation*. (1 x 2) (2)
- 3.4.2 Identify the province with the highest rate of urbanisation. (1 x 2) (2)
- 3.4.3 Name TWO pull factors that contribute to people moving from rural to urban areas. (2 x 2) (4)
- 3.4.4 Refer to the cartoon in FIGURE 3.4.
- (a) Identify the urban problem, due to urbanisation, highlighted by the cartoon. (1 x 2) (2)
- (b) Comment on why the cartoonist disagrees with the way in which the problem is being solved. (1 x 2) (2)
- (c) Suggest a sustainable solution for the problem in the cartoon. (1 x 2) (2)
- 3.5 Refer to FIGURE 3.5 which highlights the policies associated with foreign trade.
- 3.5.1 What does *foreign trade* mean? (1 x 2) (2)
- 3.5.2 Is foreign trade fairly divided between economically developed and economically less developed countries? Give evidence from the sketch to support your answer. (3 x 2) (6)
- 3.5.3 Developing countries generally have a negative trade balance.
- (a) Define the term *negative trade balance*. (1 x 2) (2)
- (b) Explain the effect that a negative trade balance has on the economy of developing countries. (2 x 2) (4)



- 3.6 Read the newspaper article titled 'Deal to tackle SA water problems' in FIGURE 3.6.
- 3.6.1 What is a *water transfer scheme*? (1 x 2) (2)
- 3.6.2 Explain why there is an increasing demand for water in South Africa. (2 x 2) (4)
- 3.6.3 Give TWO natural reasons for South Africa experiencing water shortages. (2 x 2) (4)
- 3.6.4 Farmers use the largest amount of water in South Africa. Name TWO methods that they can use to reduce water usage. (2 x 2) (4)
- 3.6.5 The Lesotho Highlands Project is seen as a means of addressing the economic needs of both South Africa and Lesotho. Write a paragraph (approximately 12 lines) detailing how this project will improve the economy of both these countries. (6 x 2) (12)
- [100]**

QUESTION 4

- 4.1 Choose a term from COLUMN B that matches a statement in COLUMN A. Write only the letter (A–F) next to the question number (4.1.1–4.1.5) in the ANSWER BOOK.

COLUMN A		COLUMN B
4.1.1	A town that develops along a road	A central place
4.1.2	A town that develops along main roads that cross each other	B linear settlement
4.1.3	A settlement with one main function	C threshold population
4.1.4	A town that provides goods and services to the surrounding rural area	D specialised settlement
4.1.5	The minimum number of people required to support a business	E star-shaped settlement
		F semicircle

(5 x 2) (10)



- 4.2 Refer to the sketch map (FIGURE 4.2) which shows South Africa's core industrial regions.
- 4.2.1 State the term used to describe an overconcentration of industries in a few core areas. (1 x 2) (2)
- 4.2.2 Name the industrial area labelled **A**. (1 x 2) (2)
- 4.2.3 Name South Africa's largest industrial area labelled **B**. (1 x 2) (2)
- 4.2.4 ... is the only industrial area that does not have a port/harbour. (1 x 2) (2)
- 4.2.5 State ONE factor that promoted industrial development in area **C**. (1 x 2) (2)
- 4.3 Refer to FIGURE 4.3 which shows an image of a land-use zone.
- 4.3.1 Identify the land-use zone in the image. (1 x 2) (2)
- 4.3.2 State TWO characteristics of this zone that are evident in the image. (2 x 2) (4)
- 4.3.3 Explain why this land-use zone developed the characteristics mentioned in QUESTION 4.3.2. (3 x 2) (6)
- 4.3.4 This zone is losing prominence (importance) in most South African cities and many businesses are moving out of the cities.
- (a) Give a term used for the movement of businesses away from this land-use zone towards the suburbs. (1 x 2) (2)
- (b) Centrifugal forces drive people and businesses to move out of this land-use zone. Write a paragraph (approximately 12 lines) supporting this statement by referring to factors that cause businesses to move away from this land-use zone. (6 x 2) (12)

- 4.4 Study the newspaper extract in FIGURE 4.4 based on trade in South Africa.
- 4.4.1 Explain the meaning of the term *trade*. (1 x 2) (2)
- 4.4.2 Give ONE reason, according to the World Bank's report, why South Africa improved its trade performance despite the global slowdown that was noted. (1 x 2) (2)
- 4.4.3 Explain why South Africa is in a better position than other African countries to continuously improve its trading position in the world. (3 x 2) (6)
- 4.4.4 What are the benefits for South Africa if its trading position in the world is improved? (2 x 2) (4)
- 4.5 Study the graph in FIGURE 4.5 based on the size of the informal sector in sub-Saharan Africa.
- 4.5.1 Define the term *informal* sector. (1 x 2) (2)
- 4.5.2 Give ONE example of informal trading. (1 x 2) (2)
- 4.5.3 Which country in Africa has the largest informal sector? (1 x 2) (2)
- 4.5.4 Comment on and give a reason for the size of South Africa's informal sector in comparison with other countries. (2 x 2) (4)
- 4.5.5 Give possible reasons why the informal sector is so popular in African countries. (2 x 2) (4)
- 4.5.6 In spite of the challenges faced by the informal sector, it has an important role to play in developing countries. Write a paragraph (approximately 12 lines) to explain the importance of the informal sector. (6 x 2) (12)
- 4.6 An effective transport system is important for the social and economic development of a country.
- 4.6.1 Classify transport as a tertiary or a quaternary economic activity. (1 x 2) (2)
- 4.6.2 Why are taxis an important mode of public transport? (3 x 2) (6)
- 4.6.3 Discuss how transport contributes to the economy of a country. (3 x 2) (6)
- [100]**

GRAND TOTAL: 300

