basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

NATIONAL SENIOR CERTIFICATE

GRADE 12

GEOGRAPHY P1

FEBRUARY/MARCH 2014

MARKS: 300

TIME: 3 hours

GEOGRAPHY + ANNEXURE: Paper 1
1078E

10781E

This question paper consists of 12 pages and a 10-page annexure.

X05

Copyright reserved

GAUTENG

INSTRUCTIONS AND INFORMATION

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

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

Answer at least ONE question from this section. If you answer ONE question from SECTION A, you must answer BOTH questions in SECTION B.

QUESTION 1

1.1 Refer to FIGURE 1.1, (attached) showing the tri-cellular air circulation, to answer the questions that follow. Various options are given as possible answers. Choose the answer and write only the letter (A–D) next to the question number (1.1.1–1.1.5) in the ANSWER BOOK, for example 1.6 A.

1.1.1 At which latitude is air sinking due to excessive cooling?

A 0º
B 30º
C 60º
D 90º

1.1.2 The winds that result from converging air masses at the equator are called …

A polar easterlies.
B tropical easterlies.
C westerly winds.
D subtropical winds.

1.1.3 Convergence occurs at the … latitude to form the ITCZ.

A 0º
B 30º
C 60º
D 90º

1.1.4 The … cell forms where the westerlies and the polar winds meet.

A Hadley
B Ferrel
C polar
D ITCZ

1.1.5 The … winds blow from the 90° latitude towards the 60° latitude.

A subtropical
B tropical easterly
C polar easterly
D westerly (5 x 2) (10)

1.2 Refer to FIGURE 1.2 (attached) showing a river meander. Match the slopes **A** and **B** in the figure with the descriptions given below. Write only the letter (**A** or **B**) next to the question number (1.2.1–1.2.5).

1.2.1 An undercut slope

1.2.2 Erosion is the main process

1.2.3 Deposition is the main process

1.2.4 Known as a slip-off slope

1.2.5 Water flows faster at this point (5 x 2) (10)

1.3 Refer to FIGURE 1.3, (attached) showing a synoptic weather map, and answer the questions below.

1.3.1 Name the pressure cell labelled **A**. (1 x 2) (2)

1.3.2 Explain the formation of pressure cell **A**. (1 x 2) (2)

1.3.3 What evidence suggests that the weather in Cape Town is likely to change in the next few hours? (1 x 2) (2)

1.3.4 Describe THREE weather changes that Cape Town will experience. (3 x 2) (6)

1.3.5 Explain the origin of the cyclone labelled **B**. (2 x 2) (4)

1.3.6 What evidence indicates that cyclone **B** will move in a south-easterly direction? (1 x 2) (2)

1.4 Refer to the cartoon based on climate change in FIGURE 1.4 (attached).

1.4.1 Define the term *climate change*. (1 x 2) (2)

1.4.2 Give evidence from the cartoon that indicates that not all people are serious about climate change. (1 x 2) (2)

1.4.3 State THREE ways in which humans have contributed to climate change. (3 x 2) (6)

1.4.4 Write a single paragraph (approximately 12 lines) proposing and explaining THREE sustainable methods that can be used to prevent climate change. (6 x 2) (12)

Copyright reserved

1.5 FIGURE 1.5 (attached) contains information about fluvial processes.

1.5.1 Name the profile of the river shown in the sketches. (1 x 2) (2)

1.5.2 Is this a perennial or a seasonal river? (1 x 2) (2)

1.5.3 Give evidence from the sketch to support your answer to QUESTION 1.5.2. (1 x 2) (2)

1.5.4 Which TWO characteristics indicate that the river is in its lower course? (2 x 2) (4)

1.5.5 Give TWO reasons why the river is likely to flood in summer. (2 x 2) (4)

1.5.6 Explain why feature **A** is useful to humans. (2 x 2) (4)

1.6 Refer to FIGURE 1.6, (attached) which shows structural landforms.

1.6.1 Name the rock strata represented in the sketch. (1 x 2) (2)

1.6.2 Name the landscape in which the features in FIGURE 1.6 form. (1 x 2) (2)

1.6.3 What is the main agent of erosion responsible for the development of these features? (1 x 2) (2)

1.6.4 Briefly explain how feature **4** formed from feature **1**. (2 x 2) (4)

1.6.5 Write a single paragraph (approximately 12 lines), discussing how the landscape illustrated in FIGURE 1.6 can be used by humans. Also refer to factors that limit the use of this landscape by humans. (6 x 2) (12)

[100]

QUESTION 2

2.1 Study FIGURE 2.1, (attached) which is based on high- and low-pressure cells. Complete the following statements by using the words given in the list below. Write only the word(s) next to the question number (2.1.1–2.1.5) in the ANSWER BOOK.

Coriolis force; Northern Hemisphere; pressure gradient force; convergence; anticlockwise; diverge; clockwise; Southern Hemisphere

2.1.1 The hemisphere in which the above pressure cells are found is the …

2.1.2 The force that influences the speed at which air travels from a high-pressure cell to a low-pressure cell is called the …

2.1.3 The direction in which air rotates around the high-pressure cell in FIGURE 2.1 is …

2.1.4 The term used to describe the movement of air into the low-pressure cell in FIGURE 2.1 is …

2.1.5 The force that deflects air when it moves from a high to a low pressure is the … (5 x 2) (10)

2.2 FIGURE 2.2 (attached) represents a river system.

2.2.1 Give the term used for the entire area drained by the river system.

2.2.2 Give the term that describes the flow of water (**A**) on the land after rain.

2.2.3 What name is given to the high-lying area (**B**) that separates two drainage basins?

2.2.4 Give the term used to describe the point where a river enters the sea (**C**).

2.2.5 Give the term that describes the seepage (**D**) of water into the ground. (5 x 2) (10)

2.3 Study the sketches based on local winds in FIGURE 2.3 (attached).

2.3.1 Name the wind labelled **C**. (1 x 2) (2)

2.3.2 Describe the formation of wind **C**. (3 x 2) (6)

2.3.3 Why does the wind move up the valley slope in sketch **B**? (2 x 2) (4)

2.3.4 Write a paragraph (approximately 12 lines), explaining the influence that wind **C** has on the location of settlements and farming activities. (6 x 2) (12)

2.4 Examine FIGURE 2.4, (attached) which is based on destructive weather features.

2.4.1 Name the weather features labelled **A** and **B**. (2 x 2) (4)

2.4.2 Describe TWO differences between weather features **A** and **B**. (2 x 2) (4)

2.4.3 Give TWO reasons why these weather features are called destructive. (2 x 2) (4)

2.4.4 Explain why area **C** is associated with calm, clear weather. (2 x 2) (4)

Copyright reserved

2.5 Refer to FIGURE 2.5, (attached) which shows the stages in the development of a fluvial feature.

2.5.1 Name the fluvial feature illustrated in the FIRST TWO sketches. (1 x 2) (2)

2.5.2 Name the process responsible for the narrowing of the meander neck at **A**. (1 x 2) (2)

2.5.3 Give reasons for the process of deposition taking place at point **B**. (2 x 2) (4)

2.5.4 Explain why feature **D** dries up. (2 x 2) (4)

2.5.5 Explain what promotes the formation of features **B** and **D** in the lower course of a river. (2 x 2) (4)

2.6 Refer to the process of river capture in FIGURE 2.6 (attached).

2.6.1 Name the type of erosion taking place at **A**. (1 x 2) (2)

2.6.2 Explain the term *captor stream/pirate stream*. (1 x 2) (2)

2.6.3 Which one, river **X** or river **Y**, is the captor stream? (1 x 2) (2)

2.6.4 Give TWO possible reasons why river **X** has a higher erosive power. (2 x 2) (4)

2.6.5 What happened to the river at **B**? (1 x 2) (2)

2.6.6 Write a paragraph (approximately 12 lines) analysing the physical and economic impact of river capture on the captured stream. (6 x 2) (12)

[100]

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

Answer at least ONE question from this section. If you answer ONE question from SECTION B, you must answer BOTH questions in SECTION A.

QUESTION 3

3.1 Examine the rural settlement patterns in FIGURE 3.1 (attached). Match the letter **A**, **B** or **C** in the figure with the most suitable description below. Write only the letter (**A** or **B** or **C**) next to the question number (3.1.1–3.1.5) in your ANSWER BOOK.

3.1.1 A highly nucleated/clustered settlement pattern

3.1.2 A dispersed/isolated settlement pattern

3.1.3 Farmsteads are arranged in a linear shape

3.1.4 Associated with higher profits

3.1.5 Shape is determined by many intersecting roads (5 x 2) (10)

3.2 Match each of the statements below with ONE of the four core industrial areas (**PWV, Durban–Pinetown, Port Elizabeth–Uitenhage, Southwestern Cape**). Write only the name of the industrial area next to the question number (3.2.1–3.2.5) in the ANSWER BOOK. An answer may be repeated.

3.2.1 Oil and sugar refineries/industries are found in this area.

3.2.2 The highest percentage of manufactured goods in South Africa is produced in this area.

3.2.3 Food processing and food canning are the main industries.

3.2.4 The closeness of raw materials favours the production of steel and metal goods.

3.2.5 The Coega IDZ is located close to this core area. (5 x 2) (10)

3.3 Central places provide the surrounding rural landscape with urban functions. The range and threshold populations of these urban functions will differ depending on how often these functions are used and how far people are prepared to travel to make use of these urban functions.

3.3.1 What does the term *range* mean? (1 x 2) (2)

3.3.2 How does the range of convenience goods differ from that of specialist goods? (2 x 2) (4)

3.3.3 Give TWO reasons why the range of convenience goods differs from that of specialist goods. (2 x 2) (4)

3.3.4 Explain the difference in the threshold population (market area) of convenience goods and specialist goods. (2 x 2) (4)

3.4 Refer to FIGURE 3.4, (attached) showing a model of land-use zones.

3.4.1 Which land-use model does FIGURE 3.4 show? (1 x 2) (2)

3.4.2 Describe ONE feature of the land-use model mentioned in QUESTION 3.4.1. (1 x 2) (2)

3.4.3 Discuss THREE reasons why the CBDs of many South African cities are losing their importance as central locations. (3 x 2) (6)

3.4.4 State TWO differences between high- and low-income residential zones evident in South African cities. (2 x 2) (4)

3.4.5 Write a paragraph (approximately 12 lines), explaining some of the factors that influence the location of land-use zones in a modern city. (6 x 2) (12)

3.5 Study the graph in FIGURE 3.5, (attached) which shows the contribution of the various economic sectors to the gross domestic product (GDP) of South Africa.

3.5.1 Define the term *gross domestic product*. (1 x 2) (2)

3.5.2 What percentage does the primary sector contribute to the GDP? (1 x 2) (2)

3.5.3 Which economic sector contributes the biggest percentage to the GDP? (1 x 2) (2)

3.5.4 Describe TWO factors that have promoted manufacturing in South Africa. (2 x 2) (4)

3.5.5 Suggest TWO ways in which manufacturing contributes to the economy of South Africa. (2 x 2) (4)

Copyright reserved

3.6 Refer to FIGURE 3.6, (attached) an article based on food security.

3.6.1 Define the term *food security*. (1 x 2) (2)

3.6.2 Why are poor countries, like those in Africa (according to the article), not able to compete with rich countries to increase food production? (2 x 2) (4)

3.6.3 Food insecurity has had many negative effects in certain countries. Name any TWO such effects. (2 x 2) (4)

3.6.4 State TWO factors that have caused food insecurity in Africa. (2 x 2) (4)

3.6.5 Genetically modified (GM) crops are being promoted as a solution to food insecurity in Africa. Take the advantages and disadvantages of GM crops into account and write a paragraph (approximately 12 lines) in which you discuss whether GM crops should be introduced to Africa. (6 x 2) (12)

[100]

QUESTION 4

4.1 Study FIGURE 4.1, (attached) which shows the classification of settlements. Give ONE term for each of the descriptions (4.1.1–4.1.5) below.

4.1.1 Factor/Characteristic used to classify settlements

4.1.2 An example of single dwellings located far from one another

4.1.3 The name of the largest settlement type

4.1.4 Gauteng is an example of this type of settlement

4.1.5 A settlement that has a small cluster of farm dwellings (5 x 2) (10)

4.2 Choose a description from COLUMN B that matches the word(s)/term(s) in COLUMN A. Write only the letter (A–F) next to the question number (4.2.1–4.2.5) in the ANSWER BOOK.

COLUMN A		COLUMN B	
4.2.1	Spatial Development Initiatives	A	movement of industries to core areas
4.2.2	Trading block	B	exchange of goods and services
4.2.3	Industrial centralisation	C	goods and services bought from foreign countries
4.2.4	Imports	D	value of imports greater than exports
4.2.5	Trade	E	aimed at attracting businesses and improving infrastructure
		F	countries with common trade agreements

(5 x 2) (10)

4.3 Study the information on expanding urban settlements in FIGURE 4.3 (attached) to answer the following questions.

4.3.1 What does the term *urbanisation* mean? (1 x 2) (2)

4.3.2 Which city in Africa will have the highest rate of urbanisation by 2025? (1 x 2) (2)

4.3.3 Give TWO reasons for the high rate of urbanisation in Johannesburg brought about by economic and social change. (2 x 2) (4)

4.3.4 Predict THREE urban problems that could be a very serious issue in African cities by 2050. (3 x 2) (6)

4.3.5 Write a paragraph (approximately 12 lines), proposing some sustainable strategies to maintain expanding urban settlements. (6 x 2) (12)

4.4 Land reform is regarded as an important strategy to fight poverty in South Africa.

4.4.1 Why did the government introduce land tenure reform in post-apartheid South Africa? (1 x 2) (2)

4.4.2 Explain why land is important to fight poverty in rural areas. (2 x 2) (4)

4.4.3 How has HIV/Aids affected the land-reform programme in South Africa? (2 x 2) (4)

4.4.4 Suggest TWO ways in which the government is addressing poverty in rural areas. (2 x 2) (4)

4.5 The table in FIGURE 4.5 (attached) provides information on the predicted water availability of some of the major rivers in South Africa in 2025.

4.5.1 Which river will have the highest availability level by 2025? (1 x 2) (2)

4.5.2 How much water will be transferred into the Upper Vaal River in 2025? (1 x 2) (2)

4.5.3 Name ONE river from which the Vaal River receives water. (1 x 2) (2)

4.5.4 Give TWO reasons why so much water needs to be transferred into the Upper Vaal River by 2025. (2 x 2) (4)

4.5.5 Explain why South Africa experiences water shortages. (2 x 2) (4)

4.5.6 Write a paragraph (approximately 12 lines) in which you give sustainable strategies to conserve water supplies in South Africa. (6 x 2) (12)

Copyright reserved

4.6 Study the information on agriculture in South Africa in FIGURE 4.6 (attached).

4.6.1 To which economic sector does agriculture belong? (1 x 2) (2)

4.6.2 Why does agriculture contribute so little to the GDP? (1 x 2) (2)

4.6.3 State TWO physical factors that influence the contribution of agriculture to the GDP. (2 x 2) (4)

4.6.4 How does exporting agricultural products contribute to the economy? (1 x 2) (2)

4.6.5 The labour force on farms is generally unstable and affects production negatively. Give TWO reasons for this instability. (2 x 2) (4)

[100]

TOTAL: 300

Copyright reserved