basic education

Department:
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REPUBLIC OF SOUTH AFRICA

SENIOR CERTIFICATE EXAMINATIONS/ NATIONAL SENIOR CERTIFICATE EXAMINATIONS

GEOGRAPHY P1

2019

MARKS: 225

TIME: 3 hours

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INSTRUCTIONS AND INFORMATION

1. This question paper consists of FOUR questions.
2. Answer ANY THREE questions of 75 marks each.
3. All diagrams are included in the ANNEXURE.
4. Leave a line between the 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. Number the answers in the centre of the line.
8. Do NOT write in the margins of the ANSWER BOOK.
9. Draw fully labelled diagrams when instructed to do so.
10. Answer in FULL SENTENCES, except when you have to state, name, identify or list.
11. Write neatly and legibly.

SECTION A: CLIMATE, WEATHER AND GEOMORPHOLOGY

Answer at least ONE question in this section.

QUESTION 1

1.1 Refer to FIGURE 1.1 showing a cross-section of a tropical cyclone. Choose the correct word(s) from those given in brackets to make the statements TRUE. Write only the word(s) next to the question numbers (1.1.1 to 1.1.7) in the ANSWER BOOK.

1.1.1 Cloud **A** is a (cumulus/cumulonimbus) cloud.

1.1.2 The updrafts at **B** are caused by (convection/advection) currents.

1.1.3 Area **C** is named the (eye/eye wall).

1.1.4 The atmospheric condition experienced at **C** is (stable/unstable)

1.1.5 **D** indicates an area of (divergence/convergence).

1.1.6 **E** will experience (light rain/thunderstorms).

1.1.7 Ocean **F** is likely (warm/cold). (7 x 1) (7)

1.2 Choose a term from COLUMN B that matches the description of a fluvial landform in COLUMN A. Write only the letter (Aï I) next to the question numbers (1.2.1 to 1.2.8) in the ANSWER BOOK, e.g. 1.2.9 J.

COLUMN A		COLUMN B	
1.2.1	A meander loop that is cut off from the main river	A	braided stream
1.2.2	The naturally raised banks of a river	B	delta
1.2.3	Forms when a river deposits its load and blocks its own path	C	undercut slope
1.2.4	Creates rough, turbulent water because of an uneven river bed	D	meander
1.2.5	Develops at the river mouth where deposition takes place	E	leveé
1.2.6	Vertical cliff where underlying soft rock is eroded away by plunging water	F	waterfall
1.2.7	Type of slope that forms on the outer bank of a meander	G	oxbow lake
1.2.8	Refers to a curve or bend along the course of a river	H	rapids
		I	slip-off slope

(8 x 1) (8)

1.3 FIGURE 1.3 is a synoptic weather map.

1.3.1 Name anticyclone **A**. (1 x 1) (1)

1.3.2 What evidence indicates that **A** is an anticyclone? (1 x 2) (2)

1.3.3 Why is anticyclone **A** generally associated with fog along the west coast of South Africa? (1 x 2) (2)

1.3.4 Why do anticyclones **A** and **B** migrate (move) northwards during winter in South Africa? (2 x 2) (4)

1.3.5 How will the movement of mid-latitude cyclone **C** be influenced by anticyclone **B**? (1 x 2) (2)

1.3.6 Explain how anticyclone **B** influences rainfall conditions along the east coast of South Africa in winter. (2 x 2) (4)

1.4 Study FIGURE 1.4 showing valley climates.

1.4.1 Does wind **B** occur during the day or at night? (1 x 1) (1)

1.4.2 Match the types of precipitation (radiation fog and frost) with the statements below:

(a) Formed when dew point temperature drops below freezing point on the valley floor (1 x 1) (1)

(b) Formed when temperature drops below dew point in the lower section of the valley (1 x 1) (1)

1.4.3 How does wind **B** create an inversion in the valley? (2 x 2) (4)

1.4.4 In a paragraph of approximately EIGHT lines, outline the negative impact of these forms of precipitation (radiation fog or frost) on humans. (4 x 2) (8)

1.5 Drainage patterns are indicated in FIGURE 1.5.

1.5.1 What is a *drainage pattern*? (1 x 1) (1)

1.5.2 Describe the dendritic drainage pattern. (1 x 2) (2)

1.5.3 State ONE visible difference between the tributaries of a dendritic and a trellis drainage pattern. (2 x 2) (4)

1.5.4 Give the underlying rock structure of a dendritic and a trellis drainage pattern. (2 x 2) (4)

1.5.5 Explain why a dendritic drainage pattern is more suitable for farming. (2 x 2) (4)

1.6 FIGURE 1.6 shows river rejuvenation.

1.6.1 What type of erosion is associated with river rejuvenation? (1 x 1) (1)

1.6.2 What evidence indicates that river rejuvenation has taken place? (1 x 1) (1)

1.6.3 Identify the force of upliftment associated with rejuvenation. (1 x 1) (1)

1.6.4 Why is rejuvenated land not suitable for human activity? (2 x 2) (4)

1.6.5 In a paragraph of approximately EIGHT lines, explain how rejuvenation could change the fluvial features downstream of the point of rejuvenation. (4 x 2) (8)

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QUESTION 2

2.1 Refer to FIGURE 2.1 showing the distribution of temperature over an urban area. Choose the correct word(s) from those given in brackets to make each of the statements TRUE. Write only the word(s) next to the question numbers (2.1.1 to 2.1.8) in the ANSWER BOOK.

2.1.1 The lines representing temperature on the sketch are known as (isohyets/isotherms).

2.1.2 Area (**A**/**B**) consists of more artificial surfaces.

2.1.3 The temperature decreases from (**A** to **B**/**B** to **A**).

2.1.4 The general horizontal surface air movement will be from (**A** to **B**/ **B** to **A**).

2.1.5 The evaporation rate is higher in area (**A**/**B**).

2.1.6 There are more hygroscopic nuclei in area (**A**/**B**), therefore it will experience a greater cloud cover.

2.1.7 Transpiration is higher in area (**A**/**B**).

2.1.8 Area (**A**/**B**) is likely to experience more precipitation. (8 x 1) (8)

2.2 Choose a term from COLUMN B that matches the description of the fluvial landform in COLUMN A. Write only the letter (Aï H) next to the question numbers (2.2.1 to 2.2.7) in the ANSWER BOOK, e.g. 2.2.8 I.

COLUMN A	COLUMN B
2.2.1 The point of origin of a river	A watershed
2.2.2 High-lying area separating two drainage basins	B floodplain
2.2.3 Where the tributaries join the main river	C mouth
2.2.4 The flat area next to river	D source
2.2.5 High-lying area between two tributaries	E drainage basin
2.2.6 Point where the river flows into the ocean	F catchment area
2.2.7 The area drained by a river system	G interfluve
	H confluence

(7 x 1) (7)

2.3 Refer to FIGURE 2.3 which illustrates two stages in the development of a mid-latitude cyclone.

2.3.1 State the hemisphere (north or south) in which the mid-latitude cyclone developed. (1 x 1) (1)

2.3.2 Give a reason for your answer to QUESTION 2.3.1. (1 x 1) (1)

2.3.3 Along which front does a mid-latitude cyclone develop? (1 x 1) (1)

2.3.4 State ONE difference between the cold sector and the warm sector. (2 x 2) (4)

2.3.5 Describe how an occlusion occurs. (2 x 2) (4)

2.3.6 Explain why it is suitable for outdoor activities to take place after the occlusion stage. (2 x 2) (4)

2.4 FIGURE 2.4 is a representation of a coastal low and a berg wind.

2.4.1 Name the season represented in the diagram. (1 x 1) (1)

2.4.2 Give ONE reason for your answer to QUESTION 2.4.1. (1 x 1) (1)

2.4.3 Why is the wind visible in FIGURE 2.4, known as a berg wind? (1 x 1) (1)

2.4.4 Refer to the air movement represented by the arrows at **A** and **B**.

(a) Name the resultant local winds associated with a coastal low at point **A** and at point **B**. (2 x 1) (2)

(b) Why is the local wind at **A** associated with dry conditions? (1 x 2) (2)

(c) In a paragraph of approximately EIGHT lines, discuss the impact of the air movement from the Kalahari High to the coastal low on the physical (natural) environment of the West Coast regions of South Africa. (4 x 2) (8)

2.5 FIGURE 2.5 illustrates types of rivers.

2.5.1 Differentiate between a *permanent* and an *episodic river*. (2 x 1) (2)

2.5.2 Describe the position of the water table in the permanent river. (1 x 2) (2)

2.5.3 Discuss TWO factors that cause an episodic river. (2 x 2) (4)

2.5.4 In a paragraph of approximately EIGHT lines, suggest the impact of deforestation (vegetation removal) on a permanent river. (4 x 2) (8)

2.6 Refer to FIGURE 2.6 which shows different activities polluting water resources.

2.6.1 What is *river management*? (1 x 1) (1)

2.6.2 Name ONE way in which the factory pollutes the river. (1 x 1) (1)

2.6.3 Explain the importance of the wastewater treatment plant in river management. (2 x 2) (4)

2.6.4 State TWO ways in which fertilisers from the crop land can impact on the ecology of the river. (2 x 2) (4)

2.6.5 Outline the negative impact of water pollution on the economy of a country. (2 x 2) (4)

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SECTION B: RURAL AND URBAN SETTLEMENTS AND SOUTH AFRICAN ECONOMIC GEOGRAPHY

Answer at least ONE question in this section.

QUESTION 3

3.1 Refer to FIGURE 3.1 showing rural settlement patterns. Match the descriptions below with the rural settlement patterns **A** or **B**. Write only **A** or **B** next to the question numbers (3.1.1 to 3.1.8) in the ANSWER BOOK, e.g. 3.1.9 B.

3.1.1 A nucleated settlement pattern

3.1.2 Lacks privacy

3.1.3 Sharing of farming equipment

3.1.4 Safety and security risk

3.1.5 Fragmented (broken up) farm land

3.1.6 Far from basic services like shops and schools

3.1.7 Produces large yields

3.1.8 Requires large amounts of money to practise farming (8 x 1) (8)

3.2 Various options are provided as possible answers to the following questions. Choose the answer and write only the letter (Aï D) next to the question numbers (3.2.1 to 3.2.7) in the ANSWER BOOK, e.g. 3.2.8 C.

3.2.1 The East London Industrial Development Zone (IDZ) is situated in t h e é

A Northern Cape.
B Western Cape.
C Free State.
D Eastern Cape.

3.2.2 The main mineral mined in the P h a l a b o r w a S D I i s

A copper.
B platinum.
C gold.
D iron ore.

3.2.3 The spatial development initiative (SDI) situated in Limpopo is the é. SDI

A Richards Bay
B Phalaborwa
C Saldanha Bay
D Platinum

3.2.4 In the Port Elizabeth-Uitenhage industrial region, the main industry is é

A fish processing.
B chemical manufacturing.
C motor vehicle assembly.
D oil refining.

3.2.5 Food processing is one of the main industries in the é industrial region.

A Western Cape
B PWV/Gauteng
C Durban-Pinetown
D Port Elizabeth-Uitenhage

3.2.6 The only landlocked industrial regi

A the Western Cape.
B Port Elizabeth-Uitenhage.
C PWV/Gauteng.
D Durban-Pinetown.

3.2.7 The core industrial region that contributes the least GDP is industrial region.

A Western Cape
B Port Elizabeth-Uitenhage
C PWV/Gauteng
D Durban-Pinetown (7 x 1) (7)

3.3 Refer to FIGURE 3.3, an extract on service provision as an urban settlement issue.

3.3.1 According to the FIGURE 3.3, what percentage of the population relies on public health care services? (1 x 1) (1)

3.3.2 Quote a statement from the extract about the state of health care in the public sector. (1 x 2) (2)

3.3.3 Explain why the provision of quality health care in urban areas is considered to be a social injustice. (2 x 2) (4)

3.3.4 In a paragraph of approximately EIGHT lines, discuss how service delivery in the public health care sector in urban areas could be improved. (4 x 2) (8)

3.4 Refer to FIGURE 3.4 showing a model of urban structure.

3.4.1 Identify the model of urban structure. (1 x 1) (1)

3.4.2 Which land-use zone covers the largest area in the illustrated model of urban structure? (1 x 1) (1)

3.4.3 Name ONE visible characteristic of the CBD. (1 x 1) (1)

3.4.4 Give ONE reason for the development of the outlying business district (**7**) on the outskirts of the city. (1 x 2) (2)

3.4.5 Refer to land-use zones **5** and **6**.

(a) Comment on the location of land-use zones **5** and **6** in relation to each other. (1 x 2) (2)

(b) Compatibility (ability to live or to exist together) determines the location of land-use zones in an urban area. Give reasons why **5** and **6** are not compatible. (2 x 2) (4)

3.4.6 What are the similarities between the South African city and the model identified in FIGURE 3.4.1? (2 x 2) (4)

3.5 Refer to FIGURE 3.5 showing the West Coast Spatial Development Initiative (SDI).

3.5.1 What is a *spatial development initiative*? (1 x 1) (1)

3.5.2 Name the port associated with the West Coast SDI. (1 x 1) (1)

3.5.3 Name ONE manufacturing industry in the West Coast SDI. (1 x 1) (1)

3.5.4 Discuss TWO physical factors that favoured the development of the SDI on the West coast. (2 x 2) (4)

3.5.5 Write a paragraph of approximately EIGHT lines to explain how the West Coast SDI uplifts the local community. (4 x 2) (8)

3.6 Refer to FIGURE 3.6 showing the role of international trade in economic development.

3.6.1 What is the purpose of international trade? (1 x 1) (1)

3.6.2 Quote from the extract why international trade is growing rapidly. (1 x 2) (2)

3.6.3 According to the extract, global trade contributes to the reduction of poverty. Explain this statement. (2 x 2) (4)

3.6.4 Explain how distance from major trading partners restricts South Africa from competing in world markets. (2 x 2) (4)

3.6.5 Explain how international trade can limit local production in a country. (2 x 2) (4)

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QUESTION 4

4.1 Match each of the descriptions below with either a high-order or a low-order central place. Write only 'high-order central place' or 'low-order central place' next to the question numbers (4.1.1 to 4.1.7) in the ANSWER BOOK, e.g. 4.1.8 high-order central place.

4.1.1 This central place offers a wide variety of functions

4.1.2 A low threshold population is associated with this central place

4.1.3 A larger sphere of influence is evident in this central place

4.1.4 According to the urban hierarchy, this central place is in the majority

4.1.5 A conurbation is an example of this type of central place

4.1.6 There is a smaller range in this central place

4.1.7 Specialised services, like universities and art galleries, are found in this type of central place (7 x 1) (7)

4.2 Various options are provided as possible answers to the following questions. Choose the correct economic concept to answer the statements. Write down only the letter (Aï D) next to the question numbers (4.2.1 to 4.2.8), e.g. 4.2.9 C.

4.2.1 Transport is an example of the

A primary
B secondary
C tertiary
D quaternary

4.2.2 The é sector is concerned with research and development.

A primary
B secondary
C tertiary
D quaternary

4.2.3 The value of goods and services produced within the boundaries of a country is its é

A gross domestic product.
B balance of payment.
C gross national product.
D balance of trade.

4.2.4 Products that are sold overseas, are s o l d o n market. e é

A import
B export
C home
D national

4.2.5 Value-a d d e d g o o d s a r e p r o d u c e d i n

A primary
B secondary
C tertiary
D quaternary

4.2.6 S u g a r c a n e f a r m i n g i s a n e x a m p l

A small-scale commercial
B small-scale subsistence
C large-scale commercial
D large-scale subsistence

4.2.7 When an industry is situated close to a mineral source, it is known as a/ a n é i n d u s t r y .

A raw-material orientated
B market orientated
C break-of-bulk point
D ubiquitous

4.2.8 The process whereby industries migrate from core industrial regions to peripheral industrial regions:

A Centralisation
B Commercialisation
C Agglomeration
D Decentralisation (8 x 1) (8)

4.3 Read the extract in FIGURE 4.3 referring to the effects of rural depopulation.

4.3.1 Define the term *rural depopulation*. (1 x 1) (1)

4.3.2 Quote TWO pieces of evidence from the passage that indicates the social effects of rural depopulation. (2 x 1) (2)

4.3.3 'Farms get bigger, while less manpower is needed'.

(a) Suggest ONE possible reason why farms get bigger. (1 x 2) (2)

(b) Discuss how 'bigger farms' could increase rural depopulation. (1 x 2) (2)

4.3.4 In a paragraph of approximately EIGHT lines, explain how land reform could reduce rural depopulation in South Africa.