GAUTENG PROVINCE
EDUCATION
REPUBLIC OF SOUTH AFRICA

TYPE OF TASK: CONTROLLED TEST ONE

SUBJECT	:	GEOGRAPHY
CODE	:	GEOG
GRADE	:	10
TERM	:	ONE
EXAMINER	:	JOHANNESBURG NORTH
MODERATOR	:	JOHANNESBURG WEST
TOTAL TIME	:	1 hour
CAPS WEIGHTING %	:	20
TERM WEIGHTING %	:	60
DATE OF IMPLEMENTATION	:	MARCH 2024

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INSTRUCTIONS AND INFORMATION

1. This question paper consists of ONE question.
2. Answer ONE question for 60 marks.
3. All diagrams are included on the question paper.
4. Leave a line between the subsections of the question answered.
5. Number the answers correctly according to the numbering system used in this question paper.
6. Number the answers in the centre of the line.
7. Do NOT write in the margins of the ANSWER SHEET
8. Draw fully labelled diagrams when instructed to do so.
9. Answer in FULL SENTENCES, except when you must state, name, identify or list.
10. Write neatly and legibly.



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CLIMATE AND WEATHER

1.1 Choose a term from COLUMN B that matches the description in COLUMN A. Write only the letter (A–I) next to the question number (1.1.1–1.1.7) in the ANSWER BOOK, for example 1.1.8 J.

COLUMN A		COLUMN B	
1.1.1	Transfer of heat through a mass flow of material	A	Maritime Climate
1.1.2	Transfer of heat through collisions of particles that make up the material liquids and gases.	B	Continental Climate
1.1.3	Incoming Solar Radiation	C	Conduction
1.1.4	Terrestrial radiation	D	Convention
1.1.5	Air temperatures decrease with height in the troposphere.	E	Short wave radiation
1.1.6	Climate influenced by the ocean current nearby.	F	Insolation
1.1.7	A relatively dry climate with very hot summers and very cold winters	G	Chlorofluorocarbons (CFCs)
		H	Long wave radiation
		I	Altitude

(7 x 1) (7)

1.2 Provide the correct layer of the atmosphere in which the following descriptions best describe. Write only the layer of the atmosphere next to the question number. For example, 1.2.9 Troposphere. ONE layer can be used for more descriptions. Choose the correct ONE.

Troposphere; Stratosphere, Mesosphere; Thermosphere

1.2.1 All weather processes take place in this layer.

1.2.2 Uppermost layer of the atmosphere.

1.2.3 The ozone layer is situated in this layer.

1.2.4 Characterised by an increase in temperature.

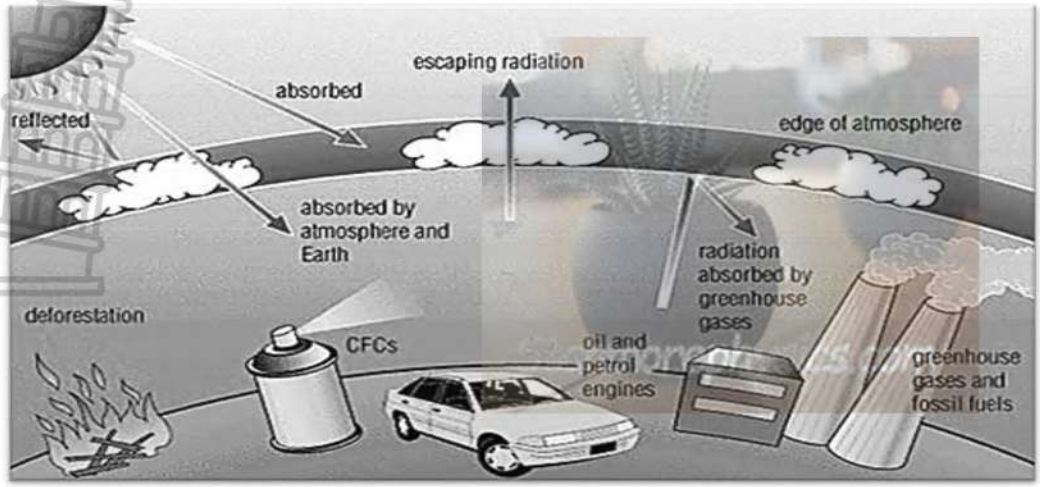
1.2.5 Layer in which planes fly.

1.2.6 Layer that supports live on Earth.

1.2.7 The coldest layer of the atmosphere.

1.2.8 Warmed by the Earth's long-wave radiation, and processes like conduction and convection (8 x 1) (8)

1.3 Study FIGURE 1.3 which depicts global warming and answer the questions that follow.



[Source: Google Images]

1.3.1 Define the concept *Global Warming.* (1 x 2) (2)

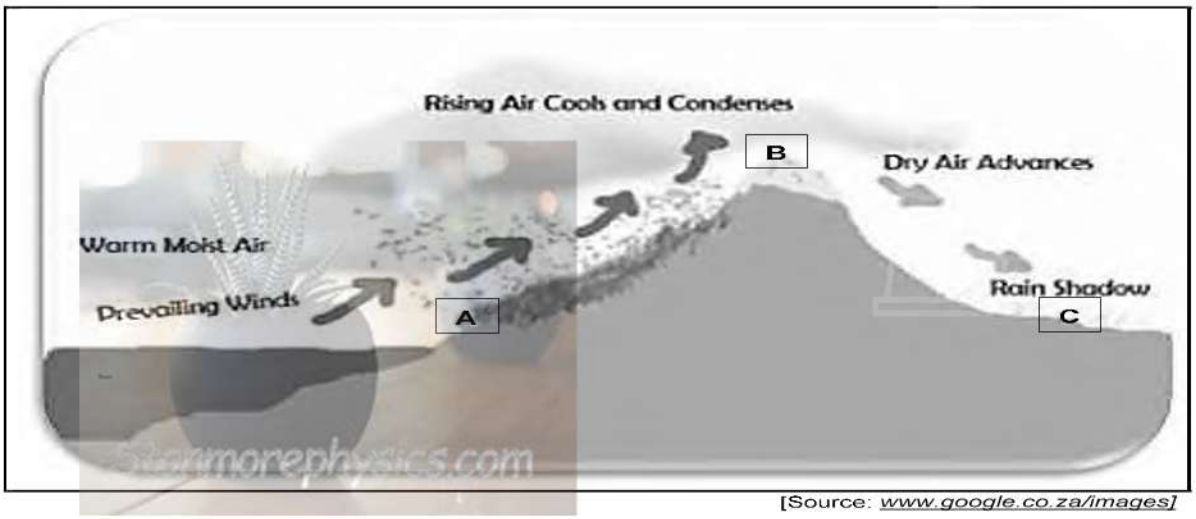
1.3.2 Identify THREE causes of global warming illustrated on the FIGURE above. (3 x 1) (3)

1.3.3 Discuss TWO consequences of global warming. (2 x 2) (4)

1.3.4 Suggest any THREE strategies that people can use to minimise global warming. (3 x 2) (6)

[15]

1.4 Refer to FIGURE 1.4 illustrating a rainfall type and answer the questions that follow.



[Source: www.google.co.za/images]

1.4.1 What type of rainfall is depicted by FIGURE 1.4 (1 x 1) (1)

1.4.2 Identify leeward side and windward side of the mountain as A, B or C

. (2 x 1) (2)

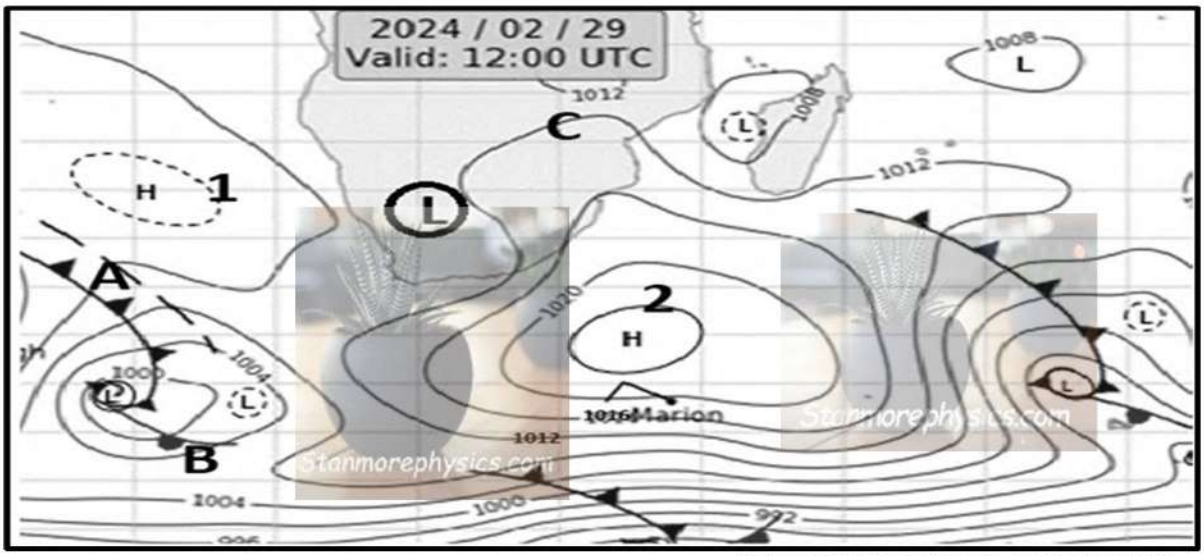
1.4.3 Rainfall is common on side A of the mountain. Justify this statement. (1 x 2) (2)

1.4.4 Explain why the temperature increases as you move downwards from B to C. (1 x 2) (2)

1.4.5 In a paragraph of approximately EIGHT lines, discuss how this type of rainfall in FIGURE 1.4 is formed. (4 x 2) (8)

[15]

1.5 Refer to FIGURE 1.5 below showing the synoptic weather map of South Africa and answer the questions that follow.



[Source: Examiner's own sketch]

1.5.1 Define the term *Isobars.* (1 x 2) (2)

1.5.2 Label fronts A and B respectively. (2 x 1) (2)

1.5.3 Identify the season is indicated on the synoptic weather? (Winter or Summer). (1 x 1) (1)

1.5.4 Give ONE reason for your answer to QUESTION 1.5.3 above. (1 x 2) (2)

1.5.5 Explain the formation of High pressure cell 1 and 2. (2 x 2) (4)

1.5.6 Discuss weather conditions associated with front A. (2 x 2) (4)

[15]

TOTAL : 60