



education

Department of
Education
FREE STATE PROVINCE



GEOGRAPHY

GRADE 10

Stanmorephysics.com



March 2025

MARKS: 60

Stanmorephysics.com

TIME: 1 HOUR

This question paper consist of 8 pages

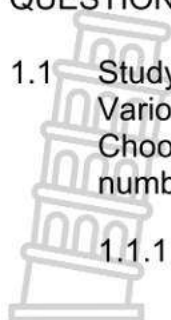
INSTRUCTIONS AND INFORMATION

1. Answer ALL the questions.
2. Answer the paragraph style questions as follows:
Discuss ideas in detail.
Write in the form of a paragraph.
3. ALL diagrams are included in the QUESTION PAPER.
4. Leave a line between subsections of questions answered.
5. Number the answers correctly according to the numbering system used in this question paper.
6. Do NOT write in the margins of your ANSWER BOOK.
7. Where possible, illustrate your answers with labelled diagrams.
8. Write clearly and legibly.

QUESTION 1

1.1 Study FIGURE 1.1

Various options are given as possible answers to the following questions. 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 1.1.9 B.



1.1.1 The increase in the average world temperatures.

- A Ozone layer
- B Droughts
- C Global warming
- D Change in climate

1.1.2 The increase of these gases contributes to an increase in temperatures.

- A Oxygen, nitrogen
- B Nitrogen, nitrous oxide
- C Argon, carbon dioxide
- D Carbon dioxide, nitrous oxide

1.1.3 A factor that is not evidence of global warming.

- A Melting of ice
- B Climate change
- C Deforestation
- D Increase in temperatures

1.1.4 Factors that contribute to increase in carbon dioxide in the atmosphere.

- A Industrialization, increase in population, stock farming
- B Industrialisation, decrease in population, stock farming
- C Industrialization, biofuel, stock farming
- D Industrialization, solar power, stock farming

1.1.5 An impact that is not the effect of global warming on the environment.

- A Droughts
- B Increase in diseases
- C Extinction of plants
- D Rising sea level

1.1.6 This strategy is not a sustainable solution to deal with global warming

- A Carbon taxes
- B Research to extract carbon dioxide from emission
- C Incentives on reduced emissions
- D More production resulting in economic growth of the country

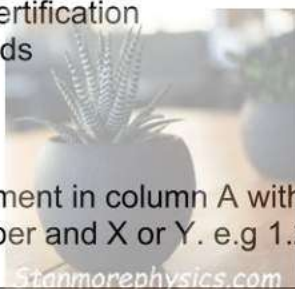


1.1.7 Strategy to deal with global warming.

- A Plant trees
- B Deforestation
- C Soil erosion
- D Land degradation

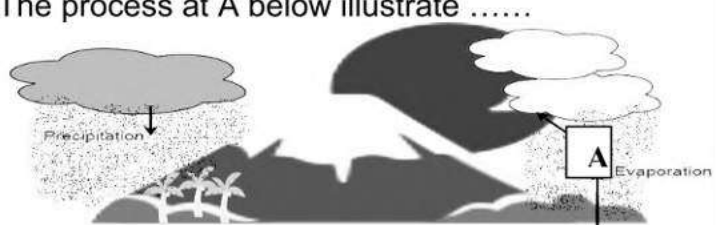
1.1.8 Change to the earth's climate patterns.

- A Climate change
- B Droughts
- C Desertification
- D Floods



(8x1) (8)

1.2 Match the statement in column A with the terms in column B. Write only the question number and X or Y. e.g 1.2.8 Y

	COLUMN A	COLUMN B
1.2.1	The process at A below illustrate 	X - water vapour Y - carbon dioxide
1.2.2	Gasses that change from time to time.	X- Permanent gasses Y- Variable gases
1.2.3	Trees taken in..... and release.....	X- oxygen, carbon dioxide Y- carbon dioxide, oxygen
1.2.4it's not an example of a permanent gas	X- Water vapour Y- Argon
1.2.5needed for respiration and plant growth	X- Nitrogen Y- Oxygen
1.2.6	People need proteins to grow andis found in proteins.	X- Nitrogen Y- Oxygen
1.2.7it is mainly used in electrical appliances	X- Nitrogen Y- Argon

(7x1) (7)

1.3 FIGURE 1.3 The atmosphere



Source: <http://r.bing.com>

1.3.1 Define the term *atmosphere*. (1x1) (1)

1.3.2 Identify layer **B** and **D**, where temperature increases with altitude. (2x1) (2)

1.3.3 Give a reason why the temperature increases with altitude in layer **B**. (1x2) (2)

1.3.4 According to climatologists, the atmospheric component mentioned in 1.3.3 is depleting slowly.

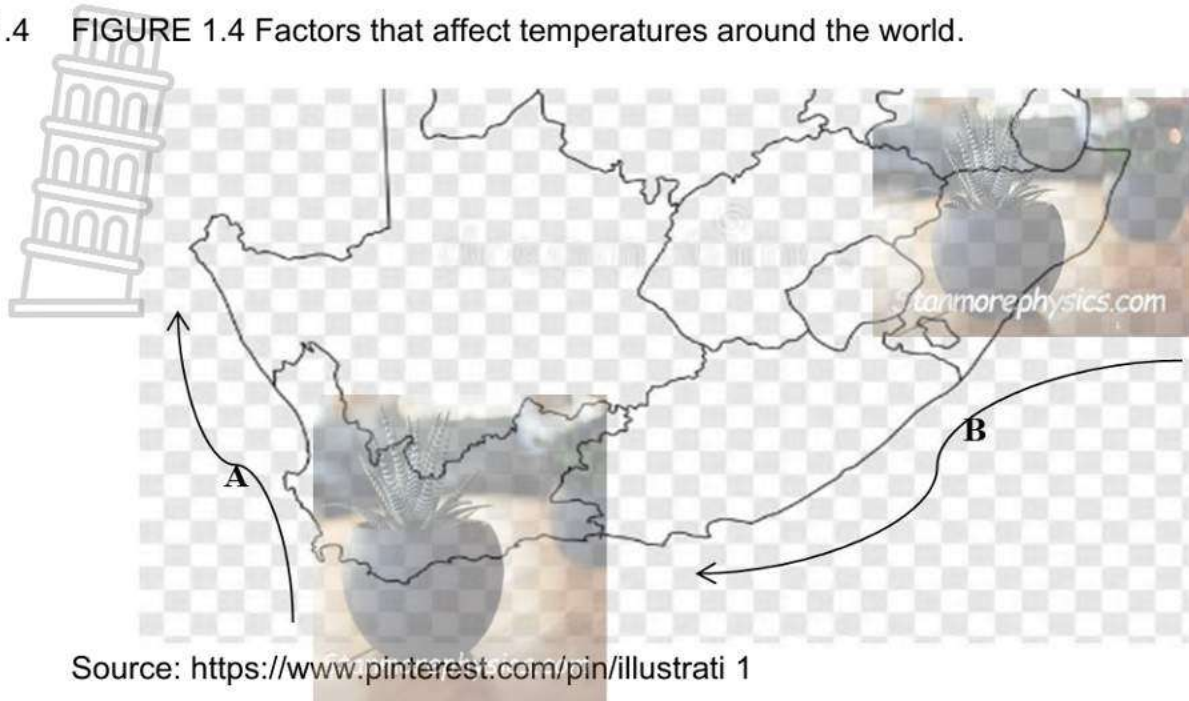
1.3.4.a Explain why the atmospheric component mentioned in 1.3.3 is depleting slowly. (1x2) (2)

1.3.4.b Discuss the effects the depletion of the atmospheric component described in 1.3.3 has on people. (2x2) (4)

1.3.4.c Suggest strategies to minimize the impacts of depletion of this atmospheric component. (2x2) (4)

[15]

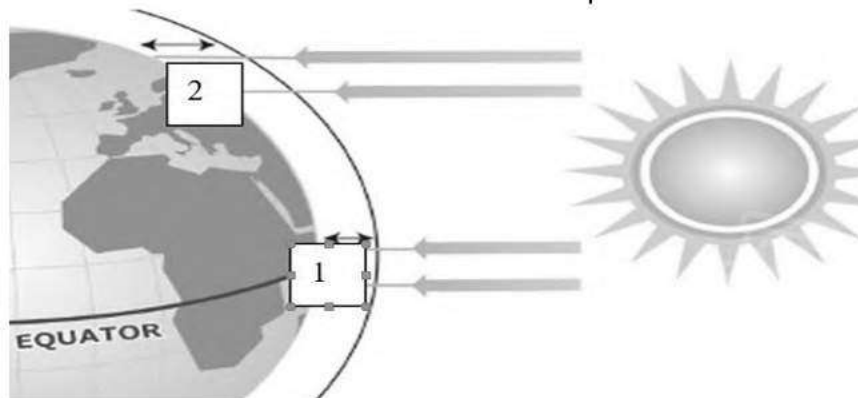
1.4 FIGURE 1.4 Factors that affect temperatures around the world.



Source: <https://www.pinterest.com/pin/illustrati> 1

- 1.4.1 Name *ocean currents* **A** and **B**. (2x1) (2)
- 1.4.2 Describe the *moisture content* AND *temperature* in **A** and **B**. (2x2) (4)
- 1.4.3 Explain how ocean current **B** influences weather on the eastern part of South Africa (1x2) (2)

FIGURE 1.4.4 Factor that influences temperatures.

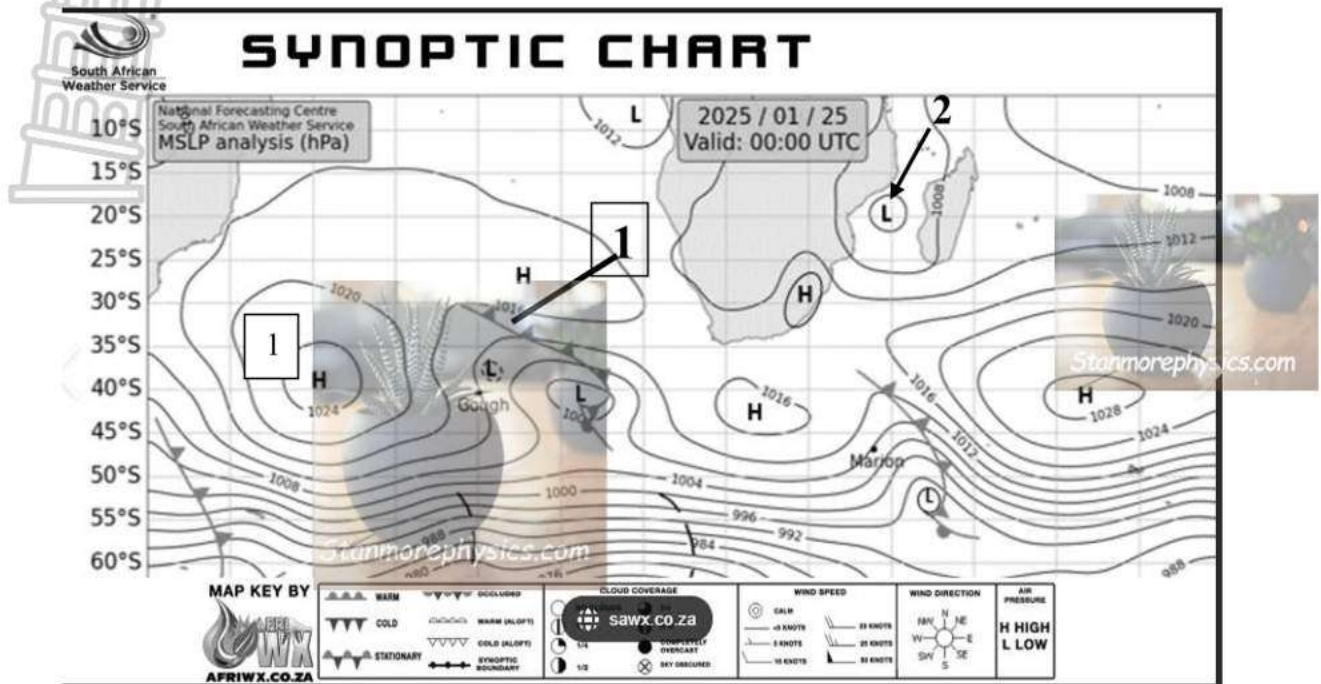


SOURCE: <http://blogborgcollective.blogspot.com/2> 1

- 1.4.4.a Refer to figure 1.4.4 above and state the factor that influences climate in this figure. (1x1) (1)
- 1.4.4.b Identify the area at **1** that is warm. (1x1) (1)
- 1.4.4.c Discuss TWO reasons for your answer in 1.4.4.b. (2x2) (4)
- 1.4.4.d Identify the coldest area at **2** that is covered with ice (1x1) (1)

[15]

1.5 FIGURE 1.5 synoptic weather map




Source: sawx.co.za

- 1.5.1 Define the term isobars (1x2) (2)
 - 1.5.2 Give isobaric interval of the synoptic weather map above. (1x1) (1)
 - 1.5.3 Justify that L at feature 2 is a low pressure. (1x2) (2)
 - 1.5.4 Identify feature 1. (1x1) (1)
 - 1.5.5 Outline the type of rain that will result from feature 1. (1x1) (1)
 - 1.5.6 In a paragraph of approximately eight lines, discuss the formation of the type of a rain mentioned in 1.5.5 (4x2) (8)
- [15]
[60]



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MARKING GUIDELINE



TESTS 1

MARKS: 60

TIME: 1 HOUR

1.1

1.1.1 C

1.1.2 D

1.1.3 C

1.1.4 A

1.1.5 B

1.1.6 D

1.1.7 B

1.1.8 B

(8)

1.2

1.2

1.2.1 X

1.2.2 Y

1.2.3 Y

1.2.4 Y

1.2.5 Y

1.2.6 X

1.2.7 X



(7)

1.3

1.3.1 Layer of gases that surrounds the earth.

(1x1)(1)

1.3.2 B-Stratosphere

D-Thermosphere

(2x1)(2)

1.3.3 Stratosphere contains ozone layer which filters ultra violet rays that increases temperatures.

(1x2)(2)

1.3.4.a) Decreasing because of the increase in Cfk's in the atmosphere, caused by human activities.

(1x2)(2)

1.3.4.b) it can affect peoples eyes, causes blindness or cataracts.

It can cause faster ageing skin/wrinkles sooner

It can weaken immune system

(ANY TWO)

(2x2)(4)

1.3.4.c) People should use ozone friendly products

The government should ensure that companies manufacture products that are not made from ozone-depleting chemicals.

Richer countries should financially assist countries that cannot afford to use the technology required to replace the ozone-depleting chemicals in certain products.

Countries should continue adhering to international agreements that combat ozone depletion, like the Kyoto Protocol.

Continuously monitoring the ozone layer and atmospheric concentrations of ozone-depleting substances to track progress and identify any potential issues.

Educating the public about the importance of the ozone layer and the dangers of ozone-depleting substances is crucial.

(ANY TWO)

(2x2)(4)(15)

1.4

1.4.1 A- Benguela current

B- Agulhas/Mozambique current

(2x1)(2)

1.4.2. A- cold and dry

B- warm and moist

(2x2)(4)

1.4.3 It brings warm and moist/rainy weather

(1x2)(2)

1.4.4.a Latitude

(1x1)(1)

1.4.4.b Equator

(1x1)(1)

1.4.4.c Receives direct sunlight

Heating is concentrated over a small area

The sun's shortwaves travels through a shorter distance, thus less heat gets lost through scattering, absorption and reflection.

(ANY TWO)

(2x2)(4)

1.4.4.d Poles

(1x1)(1)(15)

1.5

1.5.1 lines on the weather map joining places of equal atmospheric pressure.

(1x2)(2)

1.5.2 4 hPa (must write a unit of measurement)

(1x1)(1)

1.5.3 The atmospheric pressure decreases towards the centre of low pressure.

(1x2)(2)

1.5.4 Cold front

(1x1)(1)

1.5.4 Frontal rain

(1x1)(1)

1.5.5 Formed when warm air is forced to rise at cold front

Cold air wedges underneath

The warm air cools as it rises

and condenses forms clouds, which can results in rain.

(4x2)(8)(15)

GRAND TOTAL: 60