education
Department of Education
FREE STATE PROVINCE

GEOGRAPHY

TEST ONE

GRADE 11

MARCH 2026

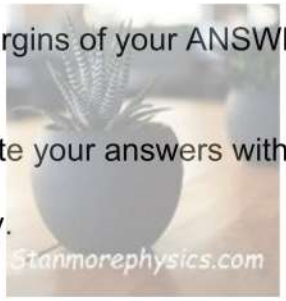
MARKS: 60

TIME: 1 HOUR

This question paper consists of 9 pages.

INSTRUCTIONS AND INFORMATION

1. Answer ALL the questions.
2. Answer the paragraph questions 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 Various options are provided as possible answers to the following questions. Choose the answer and write only the letter (A–D) next to the question numbers (1.1.1 to 1.1.7) in the ANSWER BOOK, for example 1.1.8 D.

1.1.1 The amount of insolation that heats the atmosphere depends on…

A winds
B the latitude.
C the Coriolis force
D high temperature

1.1.2 The rotation of the Earth on its axis is completed in…

A 365¼ days
B 24 days
C 24 hours
D 12 hours

1.1.3 The summer solstices in the Southern Hemisphere are characterized by…

A days and nights being of equal length.
B short days and long nights.
C long days and short nights.
D long days and long nights

1.1.4 The length of the day and night when the Southern Hemisphere experiences its spring equinox will be…

A Unequal/not the same
B Equal /same length/both 12 hours.
C 24 hours
D Both 24 hours

1.1.5 The path that the Earth travels around the sun is called…

A perihelion.
B revolution.
C axis.
D orbit.

1.1.6 When the tilt Earth's axis in Northern Hemisphere is towards the sun it experiences …. season.

A summer
B winter
C spring
D autumn

1.1.7 … in the Southern Hemisphere is around 20 March

A Winter solstice
B Summer solstice
C Spring equinox
D Autumn equinox

(7X1) (7)

1.2 Read the following statements and choose the appropriate word(s) in brackets which will make the statement TRUE. Write down only the correct answer next the question number e.g. 1.2.1 EL NINO

[source from google]

1.2.1 Drought is…(a long period without rain / fertile areas becoming more arid)

1.2.2 The picture above shows evidence of the conditions of (drought/desertification)

1.2.3 One of the causes of the conditions on the figure is…(location of low pressures/ location of the high pressures).

1.2.4 A physical impact of the conditions that is evident on the picture (decreased access to safe drinking water/increased rates of malnutrition and hunger)

1.2.5 Water restrictions and water shortages force industries to reduce production thus bringing a challenge for (tourism/economy)

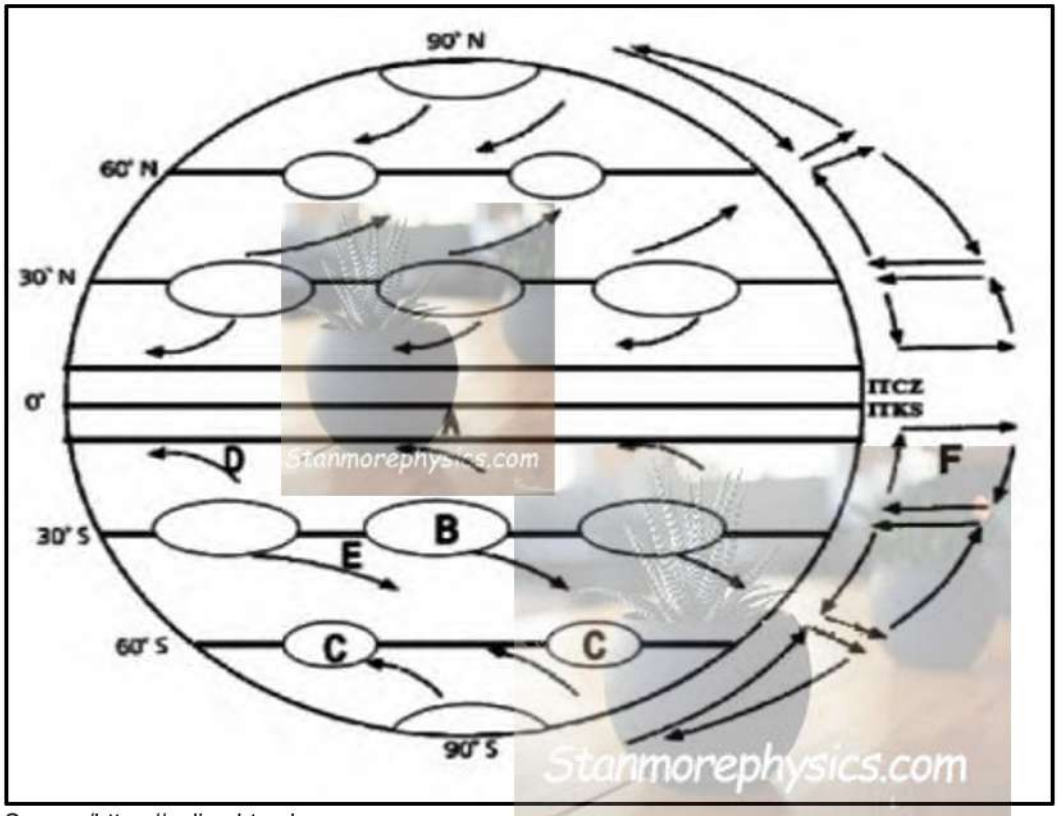
1.2.6 An economic factor that can result from the conditions evident in the picture…(malnutrition/reduced crop yields)

1.2.7 A social factor resulting from the conditions shown in the figure (higher food prices/waterborne diseases)

1.2.8 A sustainable measure to address challenges (drought awareness / adapt to the changes)

(8x1) (8)

1.3 Refer to the sketch illustrating air pressure belts and wind circulation at different latitudes on a global scale.



Source /https://online.htseden.co.za

1.3.1 Identify the pressure belt at **A** (1x1) (1)

1.3.2 What do we call the zone where two sets of Tropical Easterlies converge? (1x1) (1)

1.3.3 (a) Identify the planetary wind that develops at **E**. (1x1) (1)

(b) How has Coriolis force affected the winds identified in 1.3.3 (a)? (1x2) (2)

1.3.4 Re- draw the table below and compare the pressure system dominant at the area at 30°and 60° south of the equator

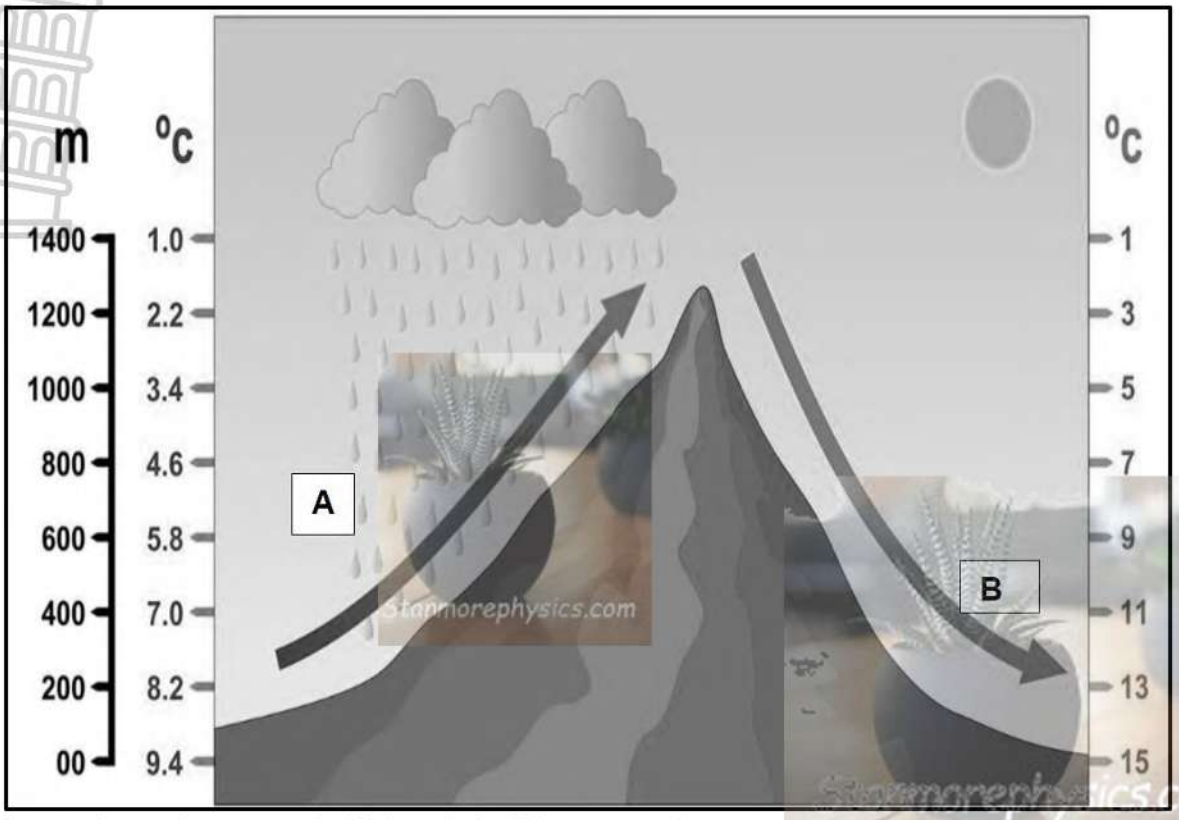
	At 30° South	At 60° South
Rotation of air		
Rising or descending air		

(4x1) (4)

1.3.5 Describe how cell **F** develops. (3x2) (6)

[15]

1.4 Refer to the sketch below representing Föhn winds.



Source https:/www.google/ Fohn winds /Alps mountain.co.za

1.4.1 Define Föhn winds (1x2) (2)

1.4.2 Provide a suitable name for Föhn wind in South Africa (1x1) (1)

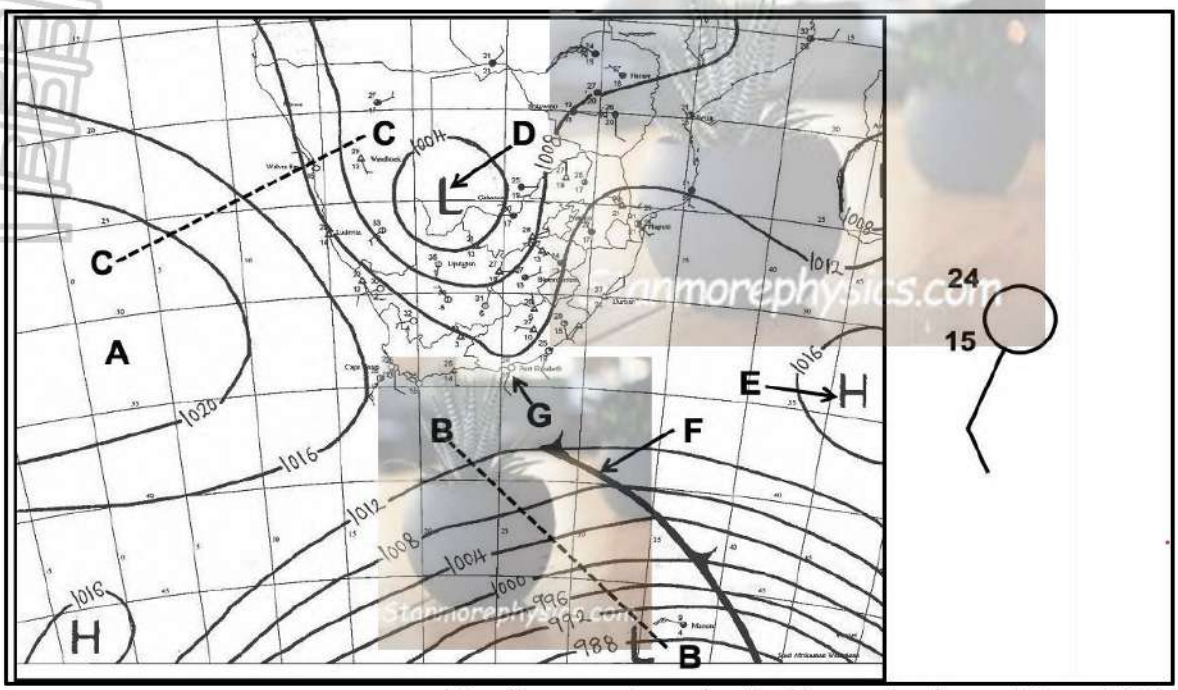
1.4.3 Label **A** and **B** respectively (2x1) (2)

1.4.4 Briefly explain why the temperature of the descending air on the leeward side is higher (15°C) than temperature on the windward side? (1x2) (2)

1.4.5 In a paragraph of approximately EIGHT lines, explain the impact of Föhn winds on the environment on the leeward side of the mountain. (4x2) (8)

[15]

1.5 Study the Synoptic weather map below and answer the questions that follow.



https://snowreport.co.za/south-africa-weather-forecast-19-nov-2020/

1.5.1 What season is indicated by the synoptic weather map? (1x1) (1)

1.5.2 Provide TWO pieces of evidence from the synoptic weather map to support your answer in 1.5.1 above. (2x1) (2)

1.5.3 (a) How is the air pressure at **A**? (1x1) (1)

(b) Give a reason for your answer in 1.5.3 (a) (1x2) (2)

1.5.4 (a) Which area **B-B** or **C-C** is experiencing high wind speeds? (1x2) (2)

(b) Justify your answer above. (1x2) (2)

1.5.5 Describe the air circulation at **D** (1x1) (1)

1.5.6 Interpret the weather station at **G** enlarged on the side of the map using the weather elements below:

(a) Cloud cover (1x1) (1)

(b) Dew point temperature (1x1) (1)

(c) Air temperature (1x1) (1)

(d) Wind direction (1x1) (1)
[15]

TOTAL 60

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MARKING GUIDELINE

This Marking Guideline consists of 6 pages

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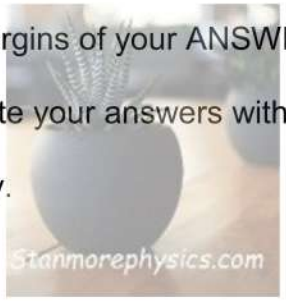

QUESTION 1

1.1 The significance of the earth 's axis

1.1.1 B (1x1) (1)

1.1.2 C (1x1) (1)

1.1.3 C (1x1) (1)

1.1.4 B (1x1) (1)

1.1.5 D (1x1) (1)

1.1.6 A (1x1) (1)

1.1.7 D (1X1) (1)

(7)

1.2 Drought

1.2.1 a long period without rain (1x1) (1)

1.2.2 drought (1x1) (1)

1.2.3 location of the high pressures (1x1) (1)

1.2.4 decreased access to safe drinking water (1x1) (1)

1.2.5 economy (1x1) (1)

1.2.6 reduced crop yields (1x1) (1)

1.2.7 waterborne diseases (1x1) (1)

1.2.8 **d**rought awareness (1x1) (1)

(8)

1.3 Global circulation

Identify pressure belt at A

1.3.1 a) Equatorial low-pressure belt (1) (1x1) (1)

what do we call the zone where two sets of Tropical Easterlies converge ?

1.3.2 ITCZ (1) (1x1) (1)

(a)Identify the planetary wind that develops at **E**.

1.3.3 a) Westerlies (1) (1x1) (1)

(b) how has Coriolis force affected the winds identified in 1.3.3 a

b) (1X2) (2)

- According to Ferrel's law wind is deflected to the left in the Southern hemisphere and to the right in the Northern hemisphere (2)
- Coriolis force has changed wind direction of the winds from northerly winds to westerlies(2)

ANY ONE (1x2)(2)

re- draw the table below and compare the pressure system dominant at the area at 30°and 60° south of the equator

1.3.4 (4x1) (4)

	At 30° South	**At 60° South**
Rotation of air	Anticlockwise (1)	Clockwise(1)
Rising or descending air	Descending. (1).	Rising . (1)

Describe how cell F develops?

1.3.5 (3x2) (6)

- Intense equatorial heating causes air to rise creating a low-pressure area.(2)
- As air rises it cools and the water vapour condenses, forming clouds and precipitation, air descends near 30^0 latitudes to form subtropical high pressure. (2)
- Air return to the equator as Tropical Easterlies. (2)
- This cell creates tropical rain along equator and deserts around 30^0(2)

ANY TWO (3X2) (6)

[15]

1.4 Fohn winds

concept

1.4.1 Föhn wind – Warm dry wind that descend on the leeward side of a mountain (2) (1x2) (2)

fohn wind in South Africa

1.4.2 Berg Wind (1) (1x1) (1)

Refer to the sketch above to answer the following questions: Label A and B respectively

1.4.3 A- Wet adiabatic lapse rate (1)
B- Dry adiabatic lapse rate (1) (2x1) (2)

briefly explain why the temperature of the descending air on the leeward side is higher (15°C) than temperature on the windward side?

1.4.4 The temperature increases by 1 °C/100 m as the air descends.(2)
Moisture evaporates as the air descends (2)

ANY ONE (1x2)(2) (1x2) (2)

impact of Fohn winds on the leeward side of thee mountain

1.4.5 **NEGATIVE IMPACT**: (4x2) (8)

- Dry, gusty winds will dry out vegetation and ignite fires (2)
- Melting of snow resulting in avalanches (2)
- Melting of snow resulting in flooding (2)
- Flooding may destroy biodiversity (2)
- Flooding may cause soil erosion (2)
- Fires may cause destruction of the ecosystem (2)
- Strong winds will cause soil erosion (2)

POSITIVE IMPACT:

- Fires may cause germination of seeds (2)
- Flooding will fill up the dams (2)
- Can refer to both negative and positive impact

ANY FOUR (4x2)(8)

[15]

1.5 Synoptic weather map

what season is indicated by the weather map?

1.5.1 Summer(1) (1x1) (1)

provide TWO pieces of evidence from the synoptic weather map to support your answer in 1.5.1 above.	1.5.2	Presence of low-pressure cell in the interior. (2) The high-pressure cells have migrated southwards. (2) Weather stations in the interior show high cloud cover. (2) The cold front passes south of the country. (2) High land temperatures in the interior (2) ANY TWO (2x1)(2)	(2x1)	(2)
a) how is the air pressure at A?	1.5.3	a) High pressure(1)	(1x1)	(1)
b) give a reason for your answer in 1.5.3 (a)		b) The atmospheric pressure increases towards the centre of the cell.(2)	(1x2)	(2)
a)Which area **B-B** or **C-C** is experiencing high wind speeds?	1.5.4	a) **B-B**	(1x2)	(2)
b) justify your answer in 1.5.4 a)		**b)** B-B shows isobars that are close together indicating a steep pressure gradient (2)	(1x2)	(2)
describe the wind circulation at **D**	1.5.5	Clockwise in the Southern Hemisphere (1)	(1x1)	(1)
Interpret the weather station at **G** enlarged on the side of the map using the weather elements below:	1.5.6	(a) Clear (1)	(1x1)	(1)
		(b) 15 ^{0}C (1)	(1x1)	(1)
		(c) 24^{0}C (1)	(1x1)	(1)
		(d) SSW/ SW (1)	(1x!1	(1) [15]

TOTAL 60