LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
EDUCATION

# CAPRICORN NORTH



## GRADE 11

## GEOGRAPHY – TERM 1



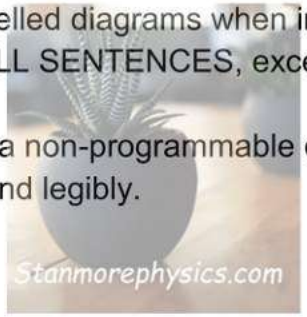
## CONTROLLED TEST 1

**MARKS: 60**

**DURATION: 1.5 Hours**

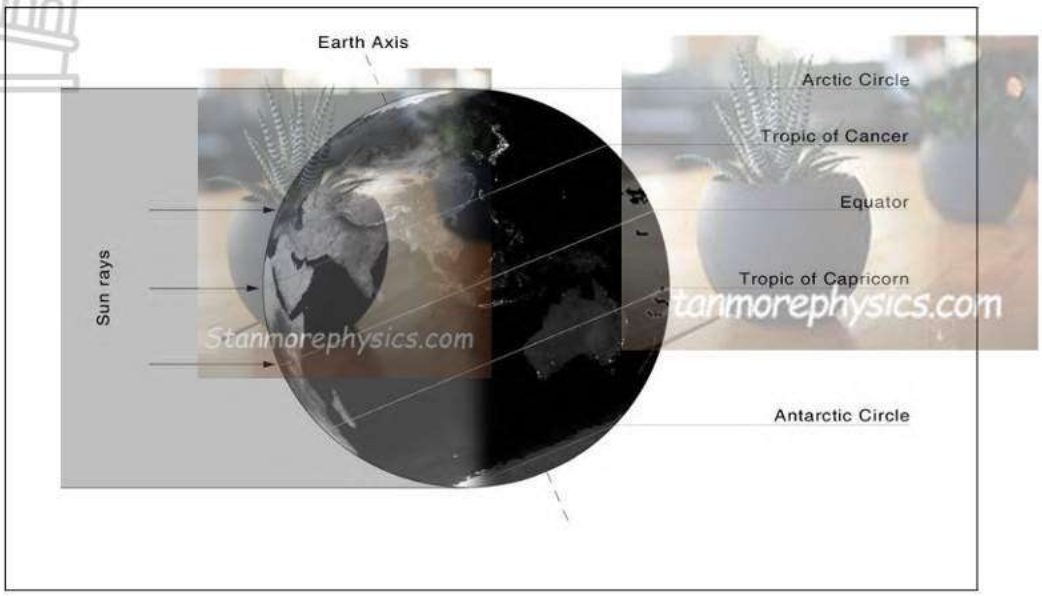
**INSTRUCTIONS AND INFORMATION**

1. All diagrams are included in the QUESTION PAPER.
2. Leave a line between subsections of questions answered.
3. Start EACH question at the top of a NEW page.
4. Number the questions correctly according to the numbering system used in this question paper.
5. Draw fully labelled diagrams when instructed to do so.
6. Answer in FULL SENTENCES, except when you have to state, name, identify or list.
7. You may use a non-programmable calculator.
8. Write neatly and legibly.



**Question 1**

**Study FIGURE 1.1 to answer this question. Choose the correct word in brackets to make the following statement correct. Write only the correct word next to the question number.**




1.1. The diagram above shows the (summer / winter) solstice.
1.2. The sun's rays strike directly over (Tropic of cancer / Tropic of Capricorn).
1.3. The Southern Hemisphere is tilted (towards / away) from the Sun.
1.4. The Solstice shown on this diagram occur on the (22 September / 22 June).
1.5. During this time the Southern Hemisphere experiences (longer/ shorter nights).
1.6. The Northern Hemisphere experiences (longer / shorter night) s at the time shown above.
1.7. At Equinox, the Sun strike directly over (Tropic of Capricorn / Equator).[7]

**1.2. Match the descriptions in Column A with the correct concept /term in column Write only the correct letter next to the question number. E.g. 1.2.1 J.**

| COLUMN A | COLUMN B |
|---|---|
| 1.2.1. Units used to measure atmospheric pressure. | A. Front |
| 1.2.2. The difference in air pressure between two areas. | B. Climatic region |
| 1.2.3. It causes air to be deflected to the right /left of its intended path. | C. Geostrophic wind |
| 1.2.4. Winds that blow from the poles to the subpolar low pressure belt. | D Hectopascals |
| 1.2.5 It blows parallel to the isobars in the upper atmosphere. | E. Coriolis force |
| 1.2.6. A boundary between two air masses of different characteristics | F. Isotherms |
| 1.2.7. An area of which temperature and rainfall conditions are similar and different to other areas. | G. Polar easterlies |
| 1.2.8. Lines joining places of equal temperature on the map | H. Pressure gradient |
| | I. Isobar |

[8]

**FIGURE 1.3. FOHN WINDS.**


1.3.1. What are Fohn winds? (1x2)(2)

1.3.2 Identify side A and B as windward or leeward side (2x1)(2)

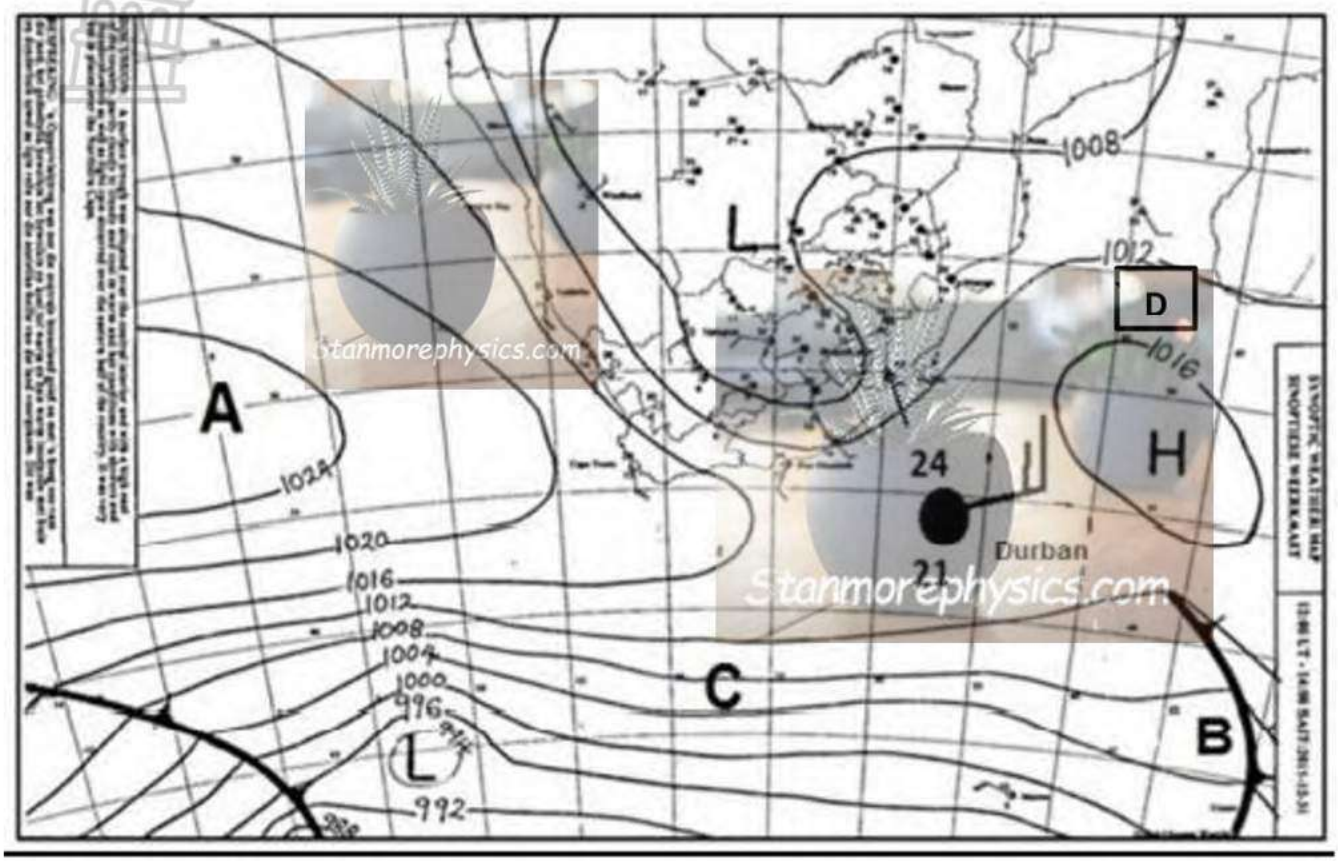
1.3.3. Is the dry adiabatic lapse rate found in the (windward side / the leeward side)? (1x1)(1)

1.3.4. Explain why air will be warmer on the lower slopes of the leeward side. (1x2)(2)

1.3.5. In a paragraph of approximately EIGHT lines discuss the negative impacts of Fohn winds. (4x2)(8)

[15]

**FIGURE 1.4.SYNOPTIC WEATHER MAP**




1.4.1. Identify the pressure cell at A and the front at B (1x2) (2)

1.4.2. What is the isobaric interval of the map? (1x1)(1)

1.4.3. Interpret any four weather conditions recorded at Durban. (1x4)(4)

1.4.4. Will winds blow clockwise / anticlockwise around system A. Support your answer? (1+2)(3)

1.4.5. Will winds be strong at area C or D. Explain your answer? (1+2) (3)

1.4.6. Give TWO reasons why the synoptic weather map is a representative of the summer season (2x1)(2)

[15]

## 1.5. FIGURE 1.5. IMPACTS OF DROUGHT

**South African grain producers find themselves grappling with the dual impact of excessive rain in winter grain regions and severe drought conditions in summer grain regions. Grain SA warns the unfavorable weather patterns are taking a toll on the agricultural sector, impacting yields and creating economic challenges for producers.**


1.5.1 Define the concept drought. (1x2)(2)

1.5.2. State the highest months in which South Africa experience severe drought (1x1)(1)

1.5.3. Describe at least TWO human causes of drought. (2X2)(4)

1.5.4. Explain the negative impacts of drought on agriculture. (2x2)(4)

1.5.5. Discuss how the severity of drought can be managed in order to maintain production in agriculture. (2x2)(4)

[15]

**TOTAL MARKS - 60**

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## MARKING GUIDELINES

**MARKS: 60**

**Question 1**

1.1

1.1.1. Winter

1.1.2. Tropic of Cancer

1.1.4. 22 June

1.1.5 Longer nights

1.1.6 Shorter nights

1.1.7 Equator


**[7]**

1.2

1.2.1 D( hectopascal)

1.2.2 H (pressure gradient)

1.2.3 E (Coriolis force)

1.2.4. G (polar easterlies)

1.2.5 C (geostrophic wind)

1.2.6.A (front)

1.2.7.B (climatic region)

1.2.8. F (isotherms)


**[8]**

1.3.1. * Are hot and dry winds that descend s down the mountain (2)

1.3.2 A-windward side (1)

B- leeward side (1)

1.3.3 Leeward (1)

1.3.4.* Because when air travels down the slope, it is compressed causing it to warm up (2)

1.3.5. * Cause a sudden rise in temperature in a short space of time (2)

* Cause melting of snow which may lead to avalanches and flooding (2)

* Rapid spread of veld fires as they are hot and dry (2)

* Cause problems for mountaineers particularly in the Alps(2)

* Cause problems for farmers if the winds blows after spring seeds may die(2)

* Cause an increase in some illness like migraines(2)

**ANY FOUR**



**[15]**

14

1.4.1 a) South Atlantic HP cell (1)

b) Cold front (1)

1.4.2 4hpa (1)

1.4.3 – Air temp: 24 (1)

-Dew point temp: 21(1)

-cloud cover : overcast (1)

-wind direction : Easterly (1)

- wind speed : 15 knots (1)

1.4.4 System B- anticlockwise (1): * it is a high pressure system therefore the movement of air is anticlockwise in the Southern hemisphere (2)

1.4.5 Area C (1) - isobars are close to each other (2)

1.4.6 –the position of high pressure systems is further South (2)



-the mid-latitude cyclone is also further South (2)

-the letter L (for LP system) in the interior(2)

- cloud cover in the land is mostly overcast indicating the high possibilities of rainfall (2)

**[15]**

1.5

1.5.1 Is a prolonged period of abnormally low rainfall (2)

1.5.2 July (1)

1.5.3

Overgrazing = putting too many livestock a small area ove a long time(2)

Deforestation n =cutting down of trees (2)

Excessive irrigation – using larger amount of water to irrigation crops(2)

Monoculture =cultivating same crops on a piece of a over a long period of time (2)

1.5.4

* drought reduces yield production (2)

*discourages the growth of crops (2)

* leads to crop failure (2)

* reduce the carrying capacity of the land(2)

* reduce the flow of water (2)

1.5.5 *by building dams and reservoirs to provide much needed water during times of drought (2)

* By cloud seeding in order to induce rainfall in dry areas (2)

* Desalination of sea water to use for irrigation(2)

* Harvesting of rainwater (2)

* Transvansement to provide for irrigation in areas prone to drought (2)

**[15]**

**TOTAL: 60**