

KWAZULU NATAL DEPARTMENT OF EDUCATION  
GREENBURY SECONDARY SCHOOL  
FIRST QUARTERLY EXAMINATION 2016  
GEOGRAPHY

GRADE: 11  
EXAMINER: F.Paruk  
MODERATOR: R.Ranganathan

DATE: 17/03/16  
DURATION: 1 HR  
MARK: 100

NAME OF LEARNER: \_\_\_\_\_

GR/DIV: \_\_\_\_\_

**INSTRUCTIONS**

1. This paper consists of 2 Sections. Section A – Theory and Section B- Mapwork
2. Answer all Questions.
3. Write neatly.
4. Number your answers as per the question paper.
5. Refer to the attached Addendum when answering the questions.
6. Number of printed pages 6.

**SECTION A**

**Question 1**

Complete each of the following statements by choosing a word\term from the list below. Write only the word\term next to the question number,

Polar Front ; Solstice ; Unstable ; Chinook ; Westerlies ;  
 Coriolis force ; Stable ; Jet stream ; Equinox ; Converges ;  
 Diverges ; Drier ; Wetter ; Monsoon

- 1.1.1 Surface winds that blow in the mid-latitudes are called \_\_\_\_\_.
- 1.1.2 The \_\_\_\_\_ causes deflection of air as a result of the earth's rotation.
- 1.1.3 \_\_\_\_\_ is a seasonal wind that causes summer rainfall.
- 1.1.4 Zone at 60° N/S where a cold and warm air masses meet is called \_\_\_\_\_.
- 1.1.5 The time of the year when day and night are of equal length is called \_\_\_\_\_.
- 1.1.6 \_\_\_\_\_ is the time in the year when the midday sun is directly overhead over one of the tropics.
- 1.1.7 High pressure cells are associated with \_\_\_\_\_ weather conditions.
- 1.1.8 Air \_\_\_\_\_ towards low pressure.
- 1.1.9 El Nino brings \_\_\_\_\_ than normal conditions.
- 1.1.10 \_\_\_\_\_ is a very fast flowing current of air.

10X2

*P.T.O. Pg 2...12 State*

**1.2 State whether the following statements are True or False.**

- 1.2.1 Föhn winds are warm dry winds.  
 1.2.2 The sub tropical High pressure zone is associated with heavy rainfall.  
 1.2.3 The Benguella current flows past the east coast of South Africa.  
 1.2.4 Cold air can hold more water vapour than warm air.  
 1.2.5 Winter Monsoons may lead to drought conditions. 5 (25)

**Question 2****Refer to the sketch (figure 1) showing air circulation.**

- 2.1 Identify this air circulation shown. 2  
 2.2 Describe the air movement at :-  
 2.2.1 A  
 2.2.2 B 2+2  
 2.3 Name the pressure zones labeled  
 2.3.1 C  
 2.3.2 D 2+2  
 2.4.1 Describe the weather conditions experienced at the 0° latitude. 2  
 2.4.2 Give a reason for the weather you described. (ans. 2.4.1) 2 (14)

**Question 3****Refer to the synoptic weather map (figure 2).**

- 3.1 Give 2 reasons you would agree that this synoptic map shows Summer. 2x2  
 3.2 Name the following:-  
 3.2.1 High pressure cell at B  
 3.2.2 Low pressure system at C  
 3.2.3 Line marked X  
 3.2.4 Front labeled A 4x2  
 3.3. Give the pressure reading at X. 2  
 3.4 Describe the wind speed at Y. Provide a reason for your answer. 2+2  
 3.5 Refer to the weather station at Durban. Describe the weather at Durban under the following headings.

- AIR TEMPERATURE
- DEW POINT TEMPERATURE
- CLOUD COVER
- WIND DIRECTION
- WIND SPEED

5X2 (28)

P.T.O Pg 3... Question 4

**Question 4**

Refer to the article (figure 3) and answer the questions.

- 4.1 Explain the following terms used in the Article .
- 4.1.1 Drought
- 4.1.2 Food security 2X2
- 4.2 Name the weather phenomenon mentioned in the article that has caused the drought conditions . 2
- 4.3 How is South Africa ensuring that it has a sufficient supply of maize. 2 (8)

**SECTION B - Map Skills****Question 5**

5.1 Refer to the aerial photo (figure 4).

- 5.1.1 Identify the type of aerial photo shown. 2
- 5.1.2 Give an advantage of using vertical aerial photographs. 2
- 5.1.3 Aerial photographs are normally taken between:-
- A. 02:00 to 10:00
- B. 10:00 to 14:00
- C. 14:00 to 16:00 2
- 5.1.4 Feature A is a road and feature B is a railway line. How would you distinguish between feature A and B. 2x2
- 5.1.5 Is area D an Industrial or residential area? Give a reason. 2+2
- 5.1.6 With reference to tone, give a reason why feature E can be identified as a river and not a road. 2
- 5.2.1 Explain the term RESOLUTION. 3
- 5.2.2 Would a 2.0 megapixel or 3.5 megapixel camera produce a clearer picture? 2
- 5.2.3 Explain how local Authorities can use satellite images to manage the effects of droughts in Kwazulu-Natal. 2x2
- (25)

TOTAL : 100

P.T.O. Pg 4 ... Addendum

## Addendum

Figure 1

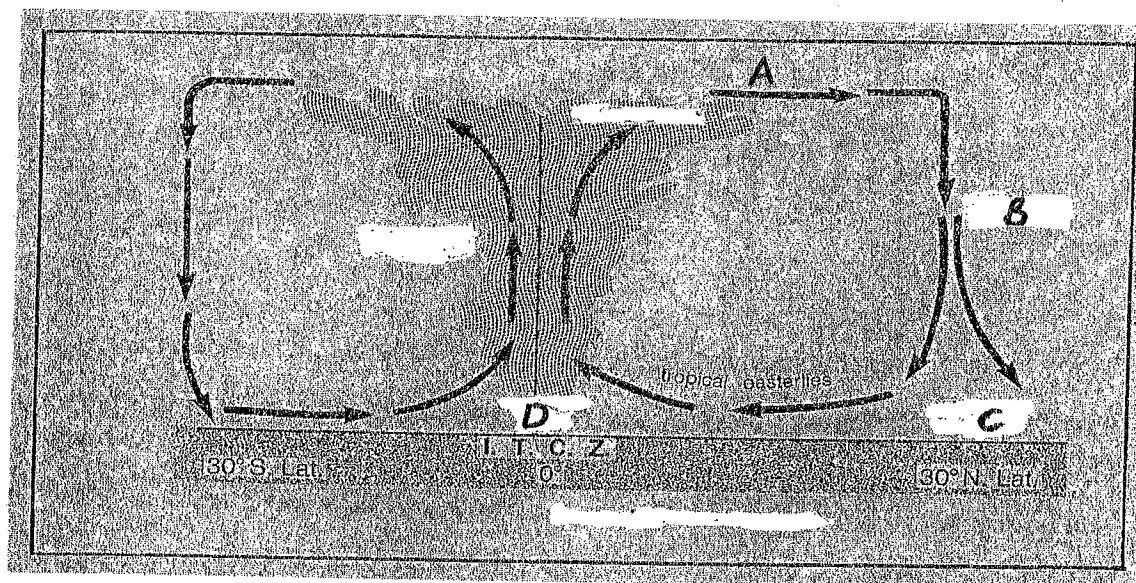


Figure 3

# Struggle to source food

## Sechaba ka'Nkosi

THE UNPRECEDENTED drought that has devastated large parts of South Africa has put pressure on regional economies with some countries in southern Africa already battling to source food for citizens.

With South Africa's crop produce dwindling, countries such as Malawi, Zambia and Zimbabwe have been forced to import maize from overseas countries at a higher cost as a result of plummeting currencies.

Experts have already warned the drought would lead to runaway food inflation in the region as regional economies crumble under the effects of El Niño that has occasioned dry weather conditions and heightened fears and concerns over a prolonged regional drought.

GrainSA economist Wandile Sihlobo this week told Business Report the full impact of the drought would be felt in months to come.

"The planting season has just ended and we still have to wait for reports on how the season has gone."

South Africa has one of the most sophisticated agricultural industries in Africa, with local farmers producing 42 percent of the total crop output in the Southern African Development Community (SADC) and supplying the region with about 70 percent of its maize.

"The current drought situation not only presents a white maize shortage to South Africans, but also affects other SADC member states," said Sihlobo.

On Friday, Agriculture, Forestry and Fisheries Minister Senzeni Zokwana said the drought had hit both commercial and emerging farmers throughout the country and would have a severe impact on food security in the region.

"In some places, no planting was done while some will have very low yields."

The impact of the drought is

also felt more severely in the local markets where currencies have fallen sharply against the US dollar which most countries would have to use to import from overseas markets.

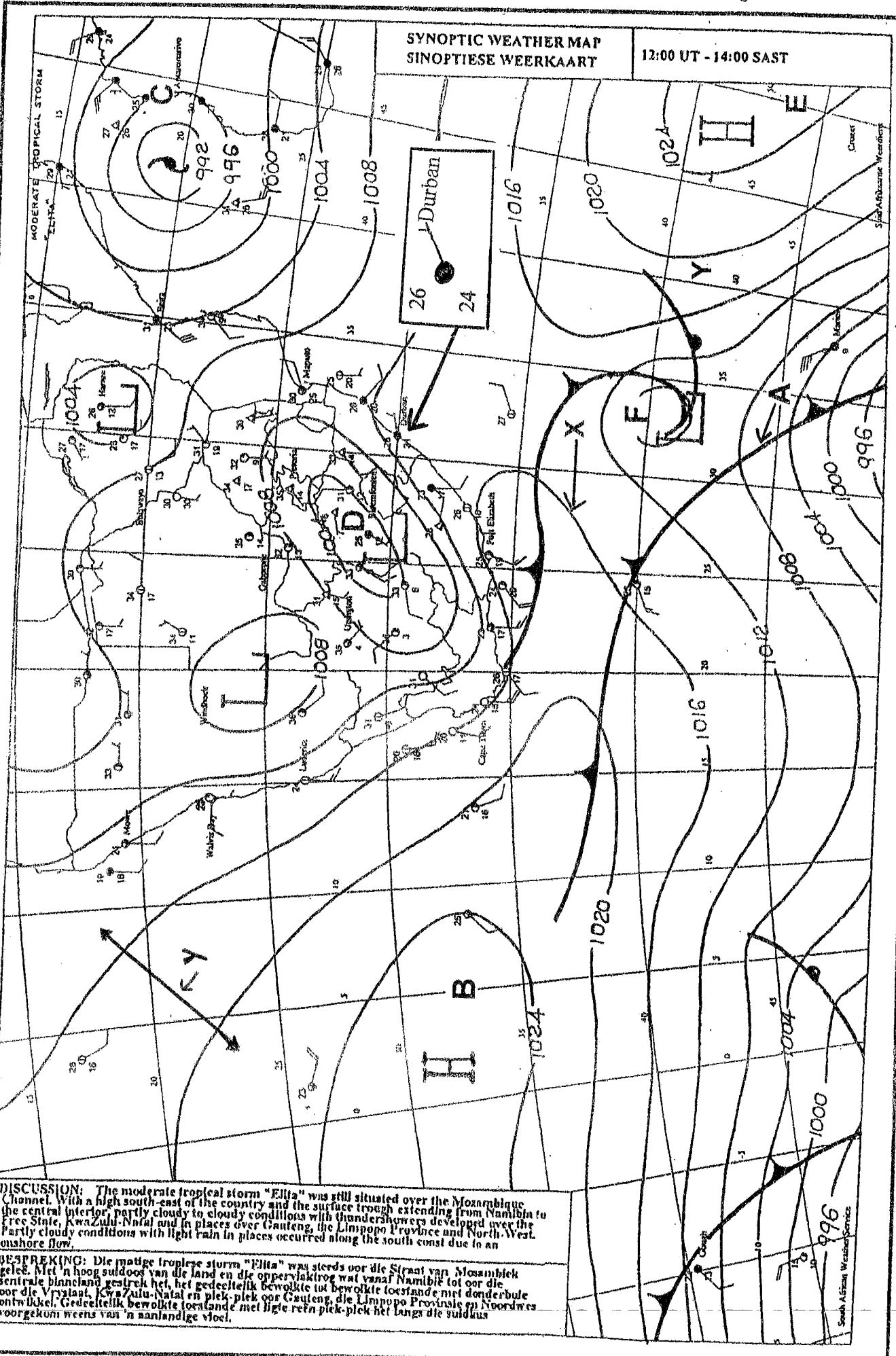
In the past few months, South Africa has imported maize from Zambia to augment its supplies.

But Zambia, whose kwacha currency has fallen by as much as 45 percent against the dollar has since announced it was planning to import maize from South America as the drought had slashed its output in the 2014/15 season by 20 percent to 2.6 million tons.

The SA Chamber of Commerce and Industry (Sacci) said it was concerned about the effects of the droughts on farmers, jobs in the sector and the ripple effect this will have on the economy.

Sacci chief executive Alan Mukoki said the drought would most likely affect consumers as maize was a staple for most South African households.

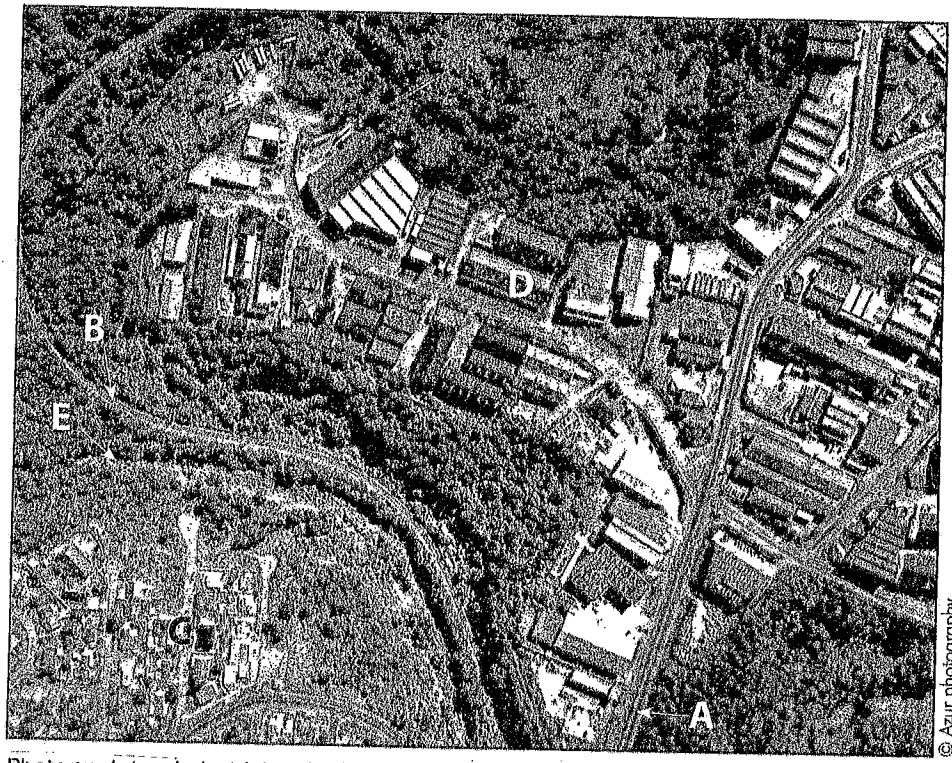
P.T.O. Pg 5... Fig. 2.



**DISCUSSION:** The moderate tropical storm "Elita" was still situated over the Mozambique Channel. With a high south-east of the country and the surface trough extending from Namibia to Free State, KwaZulu-Natal and in places over Gauteng, the Limpopo Province developed over the Partly cloudy conditions with light rain in places occurred along the south coast due to an onshore flow.

**BESPREKING:** Die matige tropiese storm "Elita" was steeds oor die Straat van Mosambiek geleë. Met 'n hoog suidoos van die land en die oppervlaktrog wat vanaf Namibi tot oor die sentrale binneland gestrek het, het gedeeltelik bewolkte tot bewolkte toestande met donderbule ontwikkel. Gedeeltelik bewolkte toestande met ligte reën-plek-plek het langs die suidkus voorgekom weens van 'n aanlandige vloei.

**Figure 4**



Photograph of Industrial park, East London

**GREENBURY SECONDARY SCHOOL**



DEPARTMENT OF HSS  
H.O.D. MR D RAMASAMI

*D. Ramasami*  
.....  
08/03/16

# GR 11 GEOG - Memo.

- |       |                |        |             |
|-------|----------------|--------|-------------|
| 1.1.1 | Westerlies     | 1.1.6  | Solstices   |
| 1.1.2 | Coriolis Force | 1.1.7  | stable      |
| 1.1.3 | Monsoon        | 1.1.8  | converges   |
| 1.1.4 | Polar Front.   | 1.1.9  | Drier.      |
| 1.1.5 | Equinox        | 1.1.10 | Jet stream. |

- 1.2.1. True.
- 1.2.2. False
- 1.2.3. False
- 1.2.4. False
- 1.2.5. True.

## 2.1. Hadley Cell.

- 2.2.1 A - Air Divergers / Divergence.
- 2.2.2 B - Subsidence. / Air sinking
- 2.3.1 C - Sub Tropical High.
- 2.3.2 D - Equatorial Low.

- 2.4.1 - Associated with. <sup>cb. clouds.</sup> Heavy Rainfall / Thunderstorms //
- 2.4.2. - due to intense heating.  $\rightarrow$  rapid convection currents  $\rightarrow$  cloud formation //

\* (2.5) Surface Winds / Tropical Easterlies blow from  $30^{\circ}$ N/S and Converge towards the  $0^{\circ}$  (Equator)

### Question 3

3.1. - High Temperature

- presence of Tropical Cyclone.

- L.P. over Continent - Thermal L.P.

- M.L.C. located Southerly / Far South

- S.A.H. ridging below W.C.

3.2.1 S.A.H.

3.2.2. Tropical cyclone.

3.2.3 Isobar.

3.2.4 Cold Front.

3.3. 1016 mb.

3.4. gentle winds - Isobars far apart / gentle pressure gradient.

3.5. Air Temp - 26°C.

D.P.T. - 24°C.

cloud cover - Overcast / 100% / 8/8 ☾

Wind direction - N.E.

Wind speed - 5 knots.

### Question 4.

4.1.1. prolonged period without Rainfall.

4.1.2. Able to provide food for oneself / Nation / population.

\* 4.1.3. Increase in Food prices.

4.2. El Niño.



### 4.3 Importing Maize From Zambia,

- \* (4.4) - Drought Conditions lead to poor crop production - farmers lose income.
- Production drops - workers Retrenched.
  - Export Decrease. - Decrease in Foreign Income.
  - Government subsidises farmers. - Shortage of Funding.
  - Industries drop in production.
  - Rise in food inflation.

(Answers relevant to Economy)

### 5.1.1 Vertical Aerial photo.

#### 5.1.3 B.

5.1

- Bird's eye view of an area
- larger area can be viewed.

5.1.4, Roads are straighter route. Railway lines are more winding - go around obstacles.

5.1.5 - Industrial larger buildings.

5.1.6 Darker Tone. - Water bodies. or Tree line. along rivers. or lakes. a more natural route/course.

5.2.1 Refers to the degree of clarity of a picture/image.

S.2.2.

35 megapixels

S.2.3.

- Identify areas affected. ///
- View environmental impact - Vegetation.
- establishing Refugee camps // strategic points
- Identifying Drainage / River - Water transfer schemes, pipelines.