

**KZN DEPARTMENT OF EDUCATION
GREENBURY SECONDARY SCHOOL
FIRST QUARTELY TEST
GEOGRAPHY**

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MODERATOR: R.RANGANATHAN
MARKS: 100**

**DATE: 29 /03/2017
GRADE: 11
DURATION: 1 HOUR**

NAME OF LEARNER: _____

GRADE/DIV: _____

INSTRUCTIONS

1. This paper consists of 2 sections:
Section A – Theory and Section B – Mapwork.
2. Answer all questions.
3. Write neatly and legibly.
4. Refer to the attached Addendum when answering the questions.
5. This paper consists of 6 printed pages.

**SECTION A
QUESTION 1**

- 1.1 Provide the correct term/concept for each of the statements below.
- 1.1.1 Lines on a map joining places of equal pressure.
 - 1.1.2 Time of the year when day and night are of equal length.
 - 1.1.3 Force responsible for the deflection of air due to the rotation of the earth.
 - 1.1.4 Winds that blow parallel to the isobars.
 - 1.1.5 Unit of measurement for air pressure.
 - 1.1.6 Warm ocean current that flows past the east coast of South Africa.
 - 1.1.7 Direction of surface air movement around a LP cell in the southern hemisphere
 - 1.1.8 A climatic condition in the Pacific ocean that causes an increase in temperature.
 - 1.1.9 Force that determines the speed of wind.
 - 1.1.10 Process by which land becomes infertile and cannot support vegetation.

(20)

QUESTION 2

- 2.1 Refer to Figure 1 showing global air circulation and answer the questions.
- 2.1.1 Name the circulatory cells labelled A and C. 4
 - 2.1.2 Name the surface winds at cell labelled C. 2
 - 2.1.3 Mention the pressure belt found at 30°S. 2
 - 2.1.4 Give 2 characteristics of the air found at 90°S. 2
 - 2.1.5 Describe the weather conditions experienced at the 0° latitude. 2
- (12)

QUESTION 3

- 3.1 Read the article in Figure 2 and answer the questions.
- 3.1.1 What is a drought? 2
 - 3.1.2 Classify the type of drought discussed in the article. 2
 - 3.1.3 State ONE effect that drought has on the economy of South Africa. 2
 - 3.1.4 Suggest Three ways in which the government can help manage the negative impact of droughts in South Africa. (3x2) 6
- (12)

QUESTION 4

- 4.1 Study Figure 3 on Föhn winds and answer the questions.
- 4.1.1 Explain your understanding of a Föhn wind. 2
 - 4.1.2 Name the side of the mountain where the air is descending at A. 2
 - 4.1.3 State the type of lapse rate occurring at B. 2
 - 4.1.4 In which continent do Föhn winds occur? 2
 - 4.1.5 What is "dewpoint temperature". 2
 - 4.1.6 Estimate the approximate height at which the dewpoint temperature is reached in the diagram. 2
- (12)

QUESTION 5

- 5.1 Study the synoptic map in Figure 4 and answer the questions.
- 5.1.1 State the season represented by the synoptic weather map. Give 2 reasons to support your answer. 5
- 5.1.2 Explain why Gough Island is experiencing overcast and cold conditions. 2
- 5.1.3 Describe the weather condition that the low pressure system over South Africa can result in. 2
- 5.1.4 What is the pressure reading at X? 2
- 5.1.5 State and explain the factor responsible for the difference in temperature between Pretoria and Durban. 4
- 5.1.6 Describe the weather conditions at Bulawayo under the following headings:
Air temperature
Dew point temperature
Cloud cover
Wind direction 4
- (19)

SECTION B – MAPSKILLS

QUESTION 6

- 6.1 Study the aerial photo (Figure 5) and answer the questions.
- 6.1.1 Identify the type of aerial photo shown. Give a reason for your answer. 3
- 6.1.2 State 2 disadvantages of using this type of aerial photo (answer to 6.1.1) 4
- 6.1.3 Feature A is natural vegetation and feature B is a row of trees. Differentiate between the texture of feature A and B. 4
- 6.1.4 Feature C is a river. What does the lighter tone of the river suggest? 2
- 6.1.5 Feature D shows a linear uniform pattern of rows of trees. Identify what this feature is. 2
- 6.1.6 Define the following:
- 6.1.6.1 Spatial resolution 2
- 6.1.6.2 Spectral resolution 2
- 6.1.7 When is the best time of the day to take an aerial photograph? 2
- 6.1.8 What are the benefits of using a satellite image to track the path of a tropical storm? (2 answers) 4
- (25)

TOTAL 100

PAGE 3 OF 6

ADDENDUM

FIGURE 1

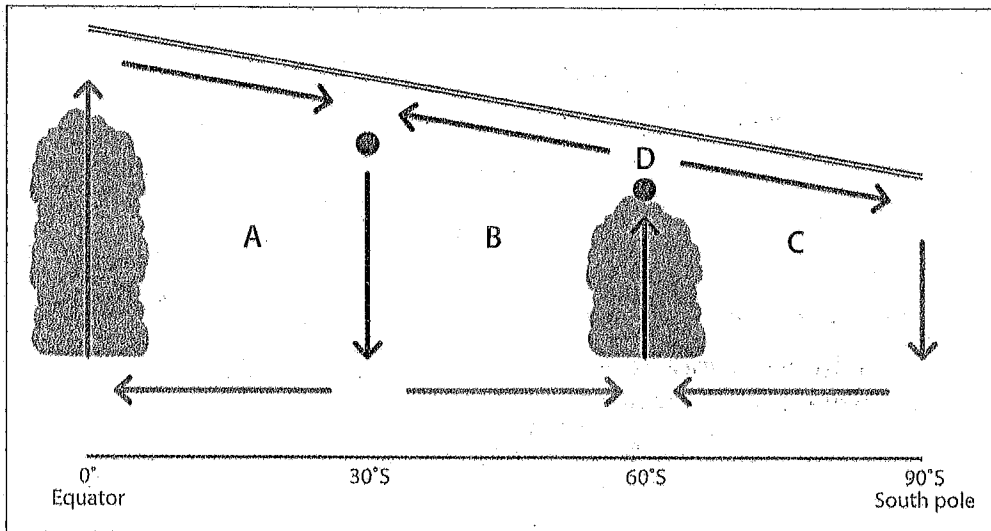


FIGURE 2

Agriculture minister has renewed hope SA will survive drought

Johannesburg – Agriculture Minister Senzeni Zokwana says he has renewed hope that the country will survive the current drought due to recent significant rainfall. The department says it's being estimated that the latest harvest will produce 7,4 million tons of maize - that's a shortage of 3,8 million tons of the staple food. The minister says he is extremely concerned about the food price increases linked to the drought.

Zokwana says the recent heavy rain fall in much needed provinces have changed the country's bleak picture of maize supply. "Initially around November/December we may be compelled to import five and six million tons, but that has gone down because of the rains". He says the drought has hit the poor the hardest - something they tried to avoid.

Zokwana says government and stakeholders in the agriculture industry need to come up with new ideas how to change the current farming methods to avoid soil erosion and other drought-related issues.

[Source: News24]

FIGURE 3

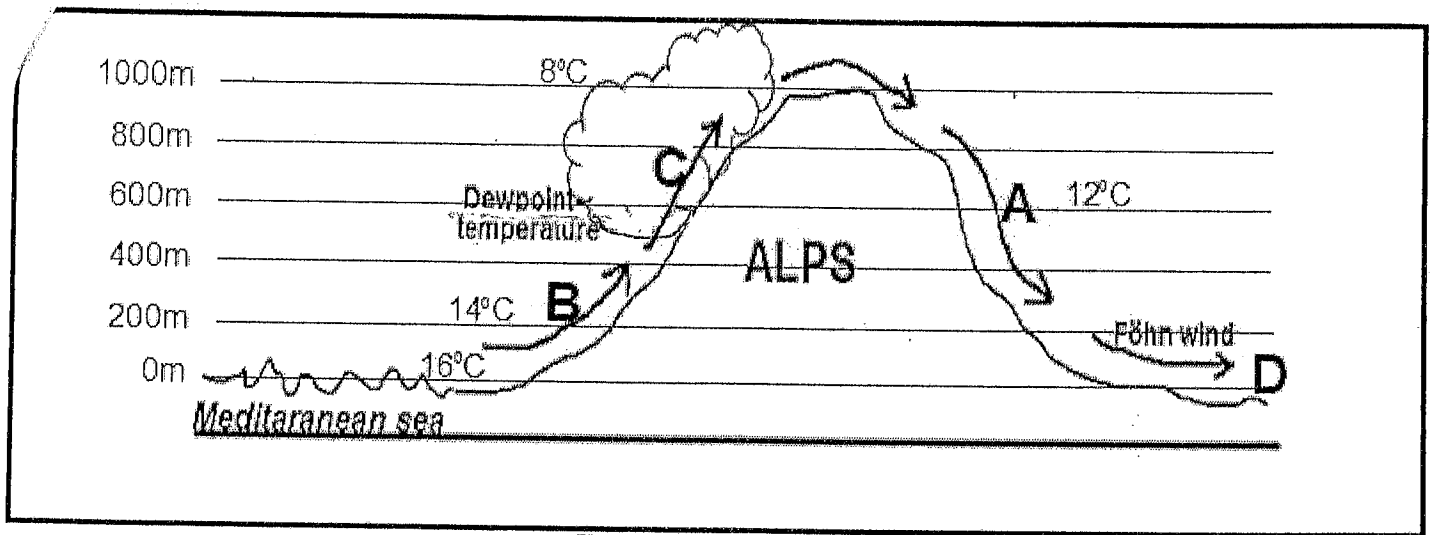


FIGURE 4

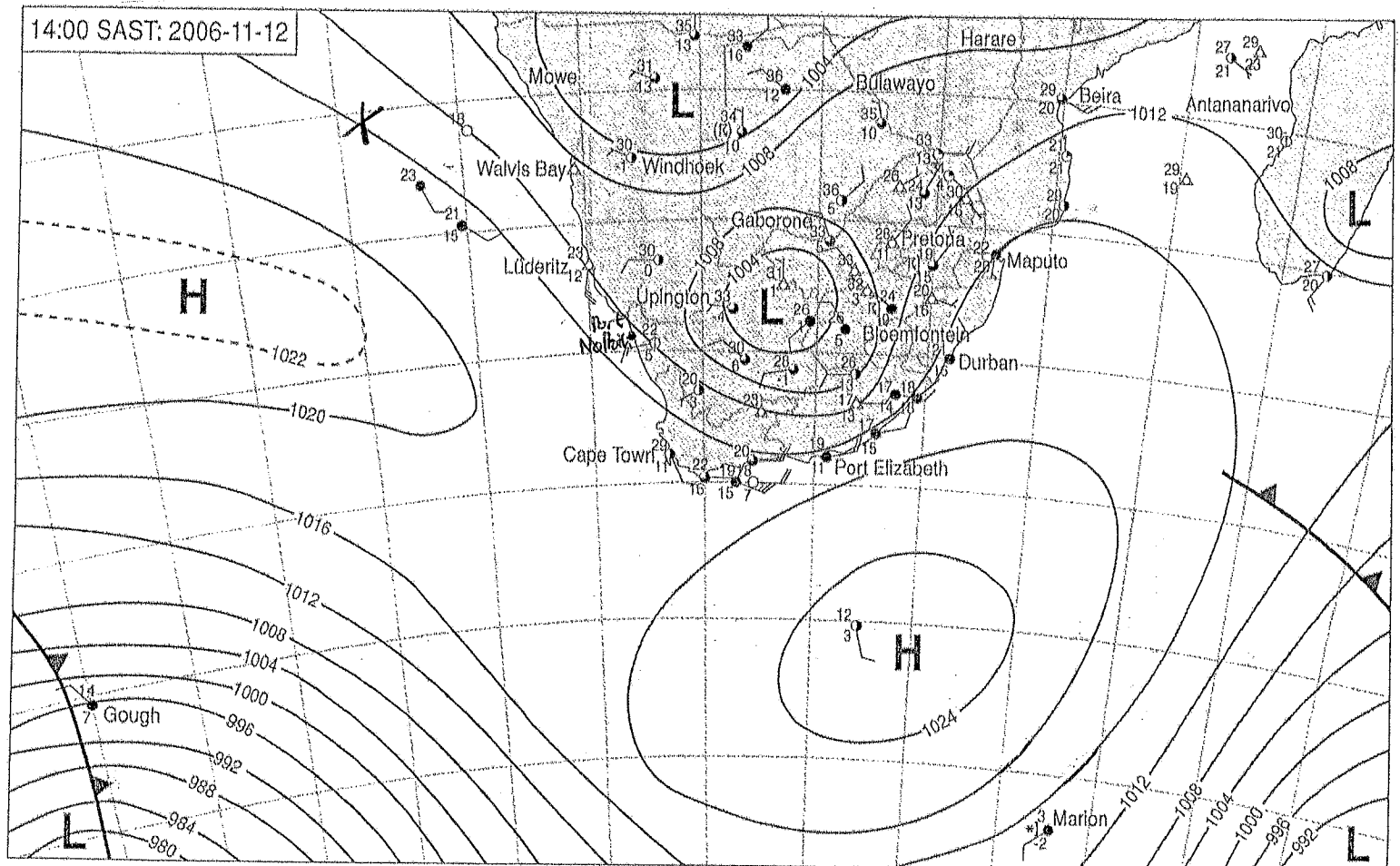
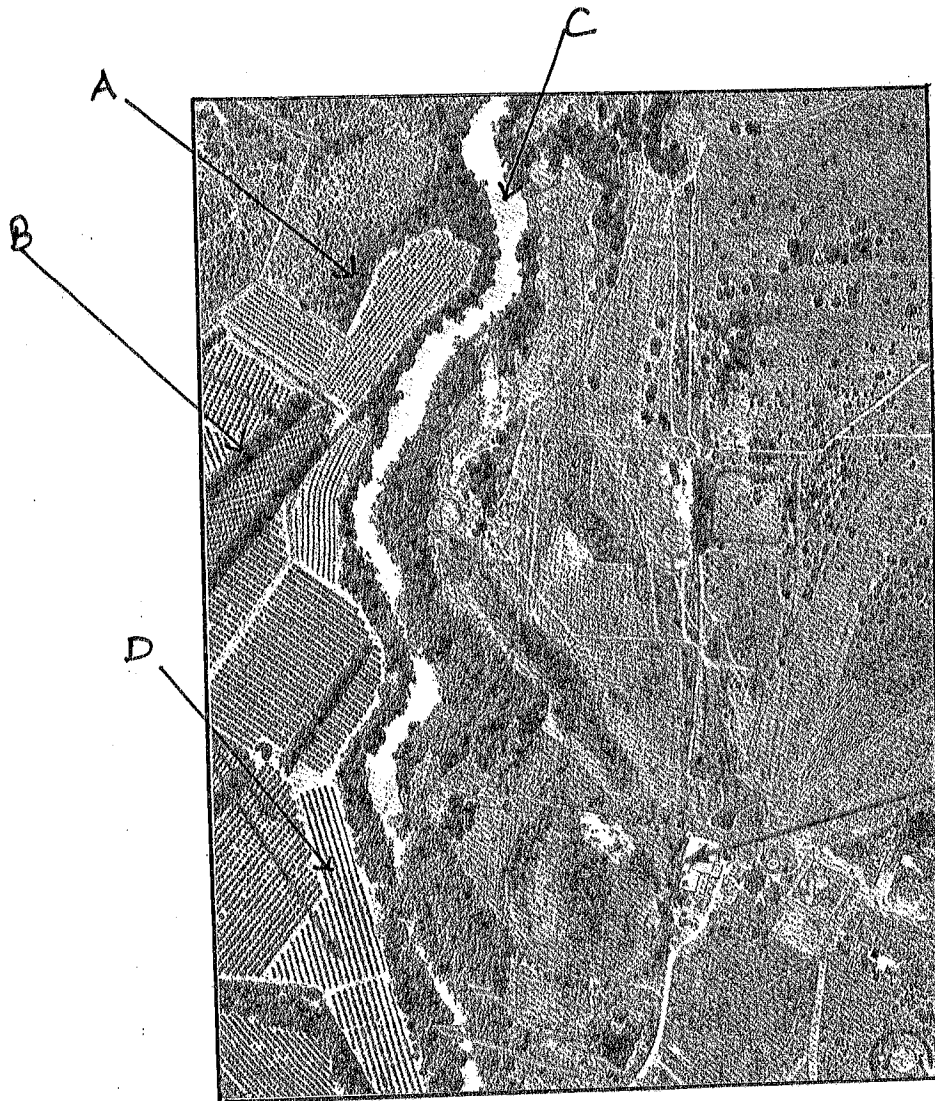


FIGURE 5



GREENBURY SECONDARY SCHOOL



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

D. Ramasami
14/03/17

①

Marking Memo

Grade 11 - Geog

March 2016

Question 1

- 1.1.1. Isobars //
- 1.1.2. Equinox //
- 1.1.3. Coriolis force //
- 1.1.4. Geostrophic wind //
- 1.1.5. mb / hPa //
- 1.1.6. Mozambique / Agulhas //
- 1.1.7. Clockwise //
- 1.1.8. El Nino //
- 1.1.9. PGF //
- 1.1.10. Desertification. //

(20)

Question 2

- 2.1.1. A - Hadley //
- C - Polar //
- 2.1.2. Polar easterlies //
- 2.1.3. sub-tropical HP //
- 2.1.4. cold, dense, subsiding air (any 2) //
- 2.1.5. Cloudy conditions, thunderstorms. //

(12)

Question 3

- 3.1.1. Prolonged period of little or no rainfall. //
- 3.1.2. Agricultural drought //
- 3.1.3. An increase in food prices. //
- 3.1.4. Build more dams/reservoirs for water storage. //
- Desalination of sea water. //
- Water transfer schemes. //
- Impose water restrictions, etc. (Any 3) //

(12)

(2)

Question 4

- 4.1.1. A warm dry wind that // blows across countries to the north of The European Alps.
- 4.1.2. leeward side //
- 4.1.3. Wet adiabatic lapse rate. //
- 4.1.4. Europe //
- 4.1.5. Temp. at which no more // evaporation can take place - condensation begins.
- 4.1.6. 500 m //

(12)

Question 5.

- 5.1.1. Summer // - LP on land //, Temp // is high, Cloudy conditions, Date. (any 2 reasons).
- 5.1.2. Cold front approaching //
- 5.1.3. rainfall //
- 5.1.4. 1016 mb //
- 5.1.5. Distance from the sea //
Durban is coastal + Pretoria // landlocked.
Land heats + cools faster than ocean.
Durban temp moderated by sea → cooler.
- 5.1.6. Air temp - 35°C //
Dew point - 10°C //
Cloud cover - overcast //
Wind direction - northerly //

(19)

Question 6

6.1.1. Vertical aerial photo - taken from above.

6.1.2. Bird's eye view is not a familiar one.

Scale is usually small - difficult to identify features.

Shadows may obscure features. (any 2).

6.1.3 Feature A - coarse / uneven

Feature B - uniform

6.1.4 River maybe shallow / carrying silt.

6.1.5. Orchard

6.1.6.1. Spatial Resolution - detail or clarity with which a map shows the location and shape of geographic features.

6.1.6.2. Spectral Resolution - refers to the range of radiation that a remote sensing device is sensitive to.

6.1.7. Bet. 10 and 14.

6.1.8. We receive real time images - early warning signs.

Inaccessible areas can be checked + rescue teams can be deployed.

(Accept any other reasonable answer). (25)

