

KZN DEPARTMENT OF EDUCATION
GREENBURY SECONDARY SCHOOL
FIRST QUARTERLY TEST - 2017
GEOGRAPHY - GRADE 10

EXAMINER : R. RANGANATHAN

DATE : 23/03/17

MODERATOR : F. PARUK

DURATION : 1 HOUR

MAX MARKS : 75

NAME : _____

GR/DIV. : _____

INSTRUCTIONS

1. This paper consists of TWO Sections, A and B.
2. Answer all questions in both Section A and B.
3. Write neatly and legibly and rule off after each question.
4. Write down your teachers name in full on the top left hand corner of your answer booklet..
5. Ensure that your paper consists of 5 printed pages and an Addendum of 3 pages.

SECTION A**QUESTION 1**

1.1 Refer to the synoptic weather map fig 1.1 in the addendum and answer the questions set.

1.1.1 Identify the following :

- a) Fronts X and Y [2]
- b) Low pressure D along the coast [1]
- c) High pressure cells labelled A, B and C [3]

1.1.2 Is this a summer or a winter map? Give a reason for your answer. [1+1=2]

1.1.3 Refer to the weather station model at Durban.

Describe the weather under the following headings.

- a) Air temperature
- b) Wind direction
- c) Wind speed
- d) Cloud cover [4X2=8]

[16]

1.2 Refer to the diagram figure 1.2 and answer the questions that follow.

1.2.1 Identify the layers labelled A, C and D. [3]

1.2.2 What is the name given to the uppermost layer labelled B? [1]

1.2.3 Give one characteristic of the Cirrus cloud depicted in the stratosphere. [2]

1.2.4 What is the approximate height of layer A? [1]

1.2.5 Name one permanent gas found in layer A. [2]

1.2.6 The ozone layer is an important layer that is found in the stratosphere.

Briefly explain what would happen on earth if there was an absence

of the ozone layer. (2 answers). [2X2=4]

[13]

P.T.O...

- 1.3 Refer to the figure 1.3 – Three forms of water and answer the questions that follow.
- 1.3.1 Provide terms for 1,2,3,4 and 5. [5X1=5]
- 1.3.2 With the aid of a diagram, explain the water cycle.
Diagram : [6]
Explanation : [6] [12]
- [17]
- 1.4 Refer to the article figure 1.4 and answer the questions that follow.
- 1.4.1 Define the following terms.
- a) Global warming [2]
- b) Greenhouse Effect [2]
- 1.4.2 List 2 greenhouse gases. [2]
- 1.4.3 What, according to the article are the effects of global warming?
(2 answers). [2X2=4]
- 1.4.4 Many people are ignorant about global warming. List 2 things mentioned in the article that the local authorities can do to change people's mindsets and make them more aware of global warming. [4]
- [14]
- TOTAL FOR SECTION A [60]**

SECTION B – MAPWORK + GIS**QUESTION 2**

Refer to the map of Southern Africa figure 2 and answer the questions. Choose the correct option to complete the sentence. Write down only the letter of the correct answer.

- 2.1 Latitude is the angular distance.
- a) North and south of the equator.
 - b) East and west of the equator
 - c) East and west of the prime meridian
- 2.2 The equator is :
- a) The lowest meridian on the map
 - b) The lowest latitude on the map
 - c) The lowest co-ordinate on the map
- 2.3 A person standing at 20°S; 40°E would be :
- a) In the Kalahari basin
 - b) In the Atlantic ocean
 - c) In the Mozambique channel
- 2.4 The position of Durban is approximately.
- a) 30°S; 32°E
 - b) 32°S; 30°E
 - c) 30°S; 40°E
- 2.5 The ocean along the east coast (Dbn) is the :
- a) Pacific
 - b) Indian
 - c) Atlantic

[5X1=5]

P.T.O...

QUESTION 3 – GIS

- 3.1 Explain your understanding of geographical information systems (GIS). [1]
- 3.2 Suggest 2 uses of GIS. [2]
- 3.3 What do you understand by the term map projection? [2]
- 3.4 Name the 3 types of spatial objects that you have studied. [3]
- 3.5 Differentiate between vector and raster maps. [2]

[10+5=15]

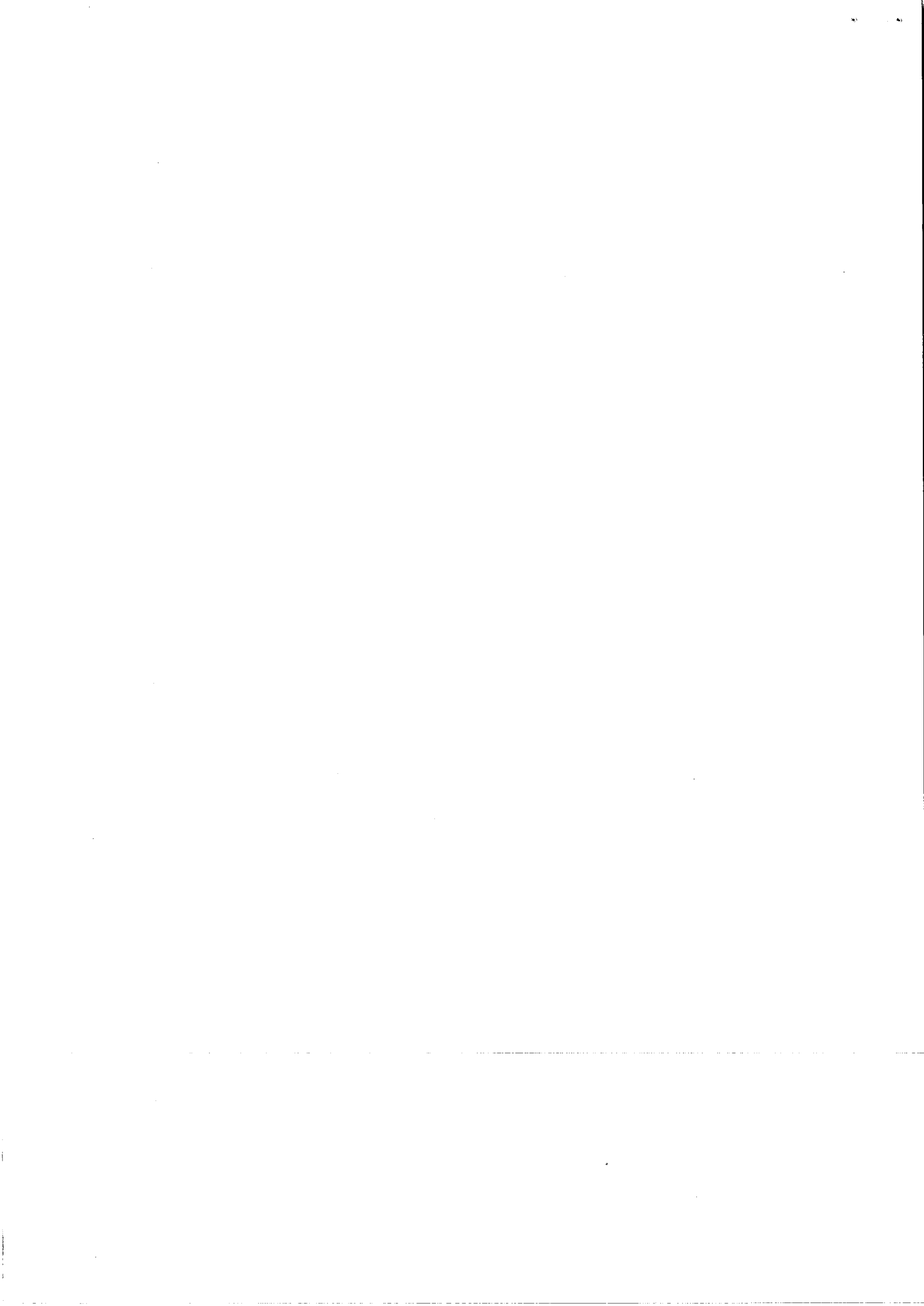
TOTAL FOR MAPWORK [15]

GREENBURY SECONDARY SCHOOL



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

D. Ramasami
15/03/17



**GEOGRAPHY
GRADE 10**

**MARCH
CONTROL TEST**

2017

ADDENDUM

Figure 2.

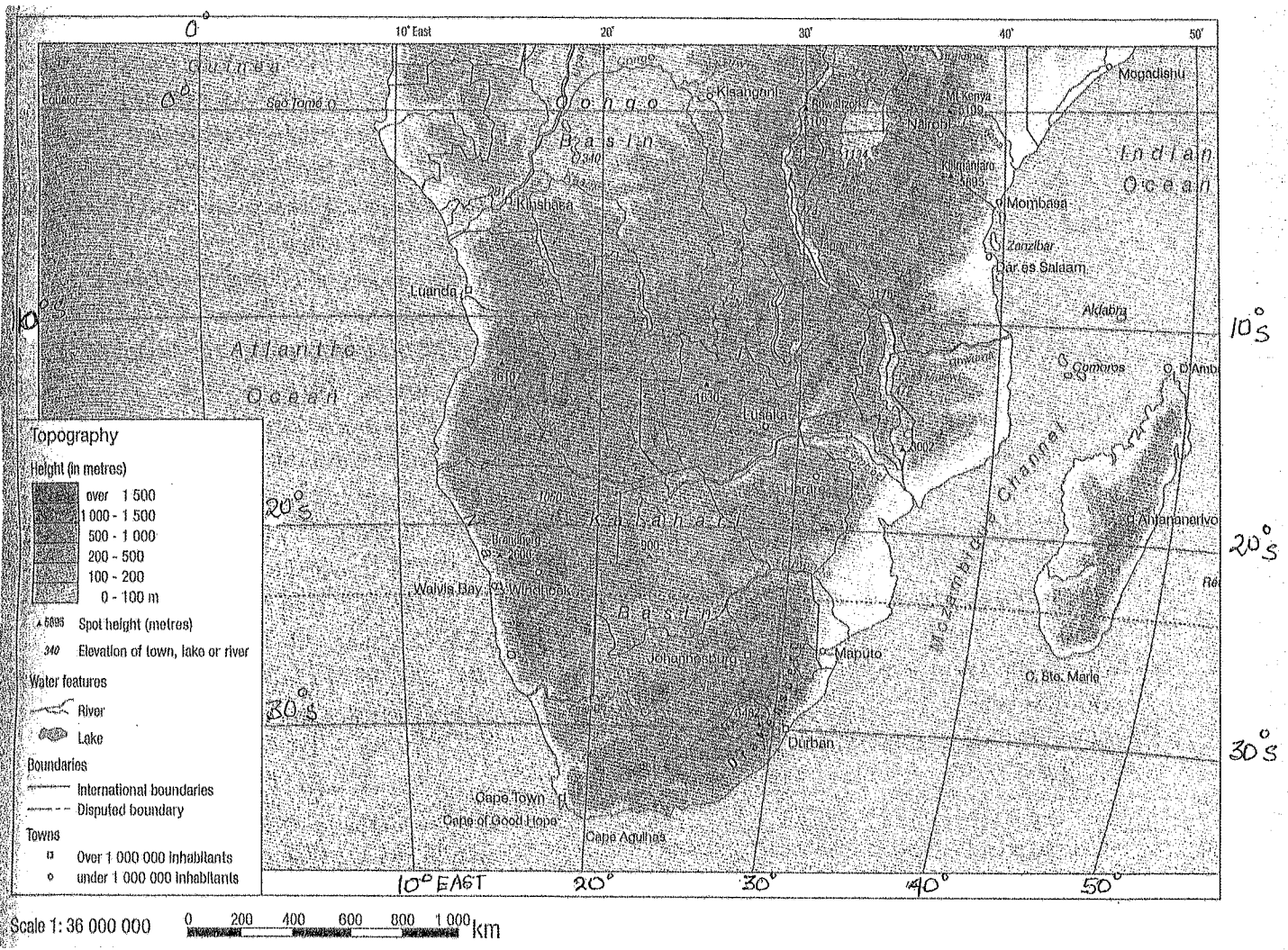


Fig. 1.1.

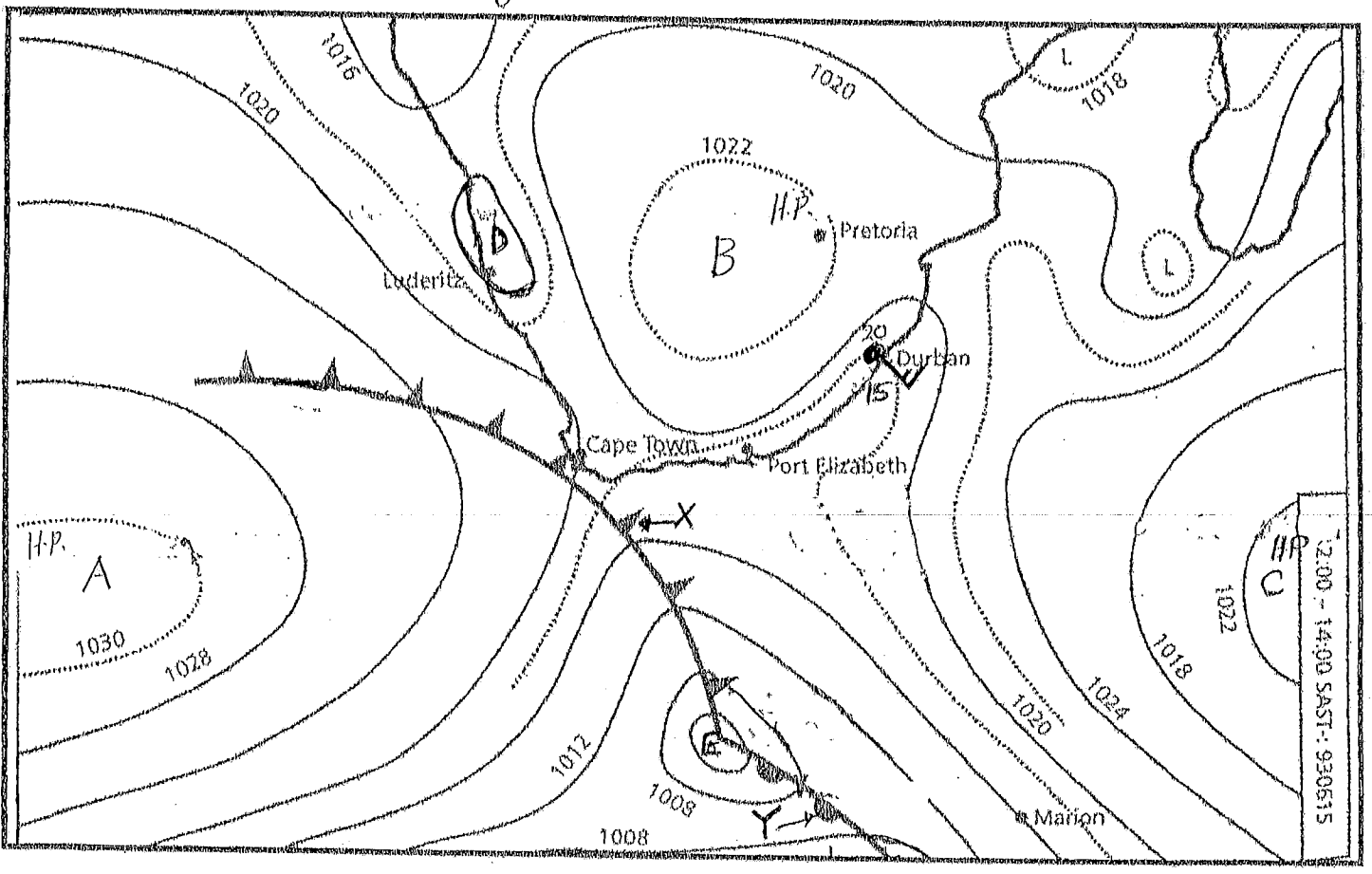


Fig 1.2

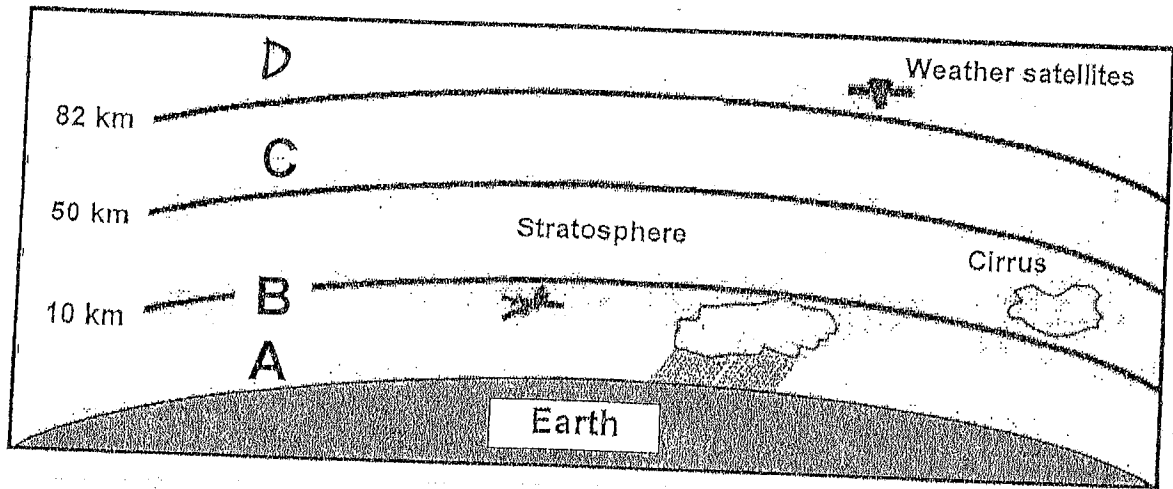


Fig 1.3.

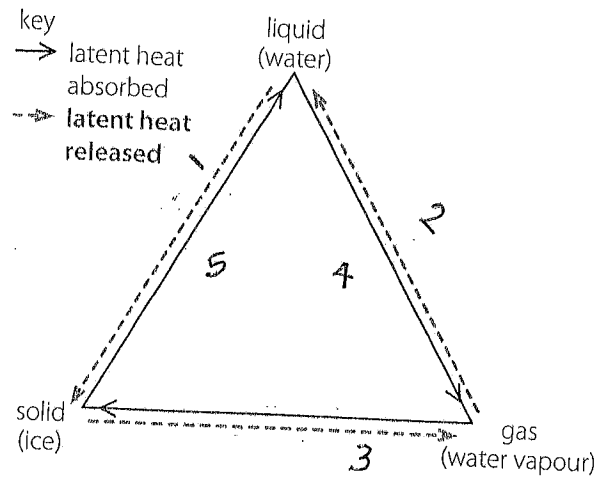


Fig 1.4

Climate change concerns us all
DYMpongose

I HEARD the terms "global warming" and "greenhouse effect" many times, but until recently it had never occurred to me that I could have had anything to do with these phenomena.

My ignorance made me realise that there could be many other Durbanites who still need some education on these topics to help them live environmentally-conscious lives and reduce activities that increase concentrations of greenhouse gases in the atmosphere.

As we experience ongoing effects of global warming in our daily lives and the climate gets worse by the season, our beautiful city is also affected.

We can't grow our own vegetables because of the heavy rains and high temperatures. People are dying in storms and scores of others are being left homeless. With all this happening we carry on with our braais by the beach every weekend. Education campaigns are essential if we are to counter this ignorance and encourage our citizens to adopt a green lifestyle. The City's Communications Department, with other departments, could help make this possible.

Our Municipality can also adopt environmentally-sound bylaws that prohibit certain activities and promote good practices.

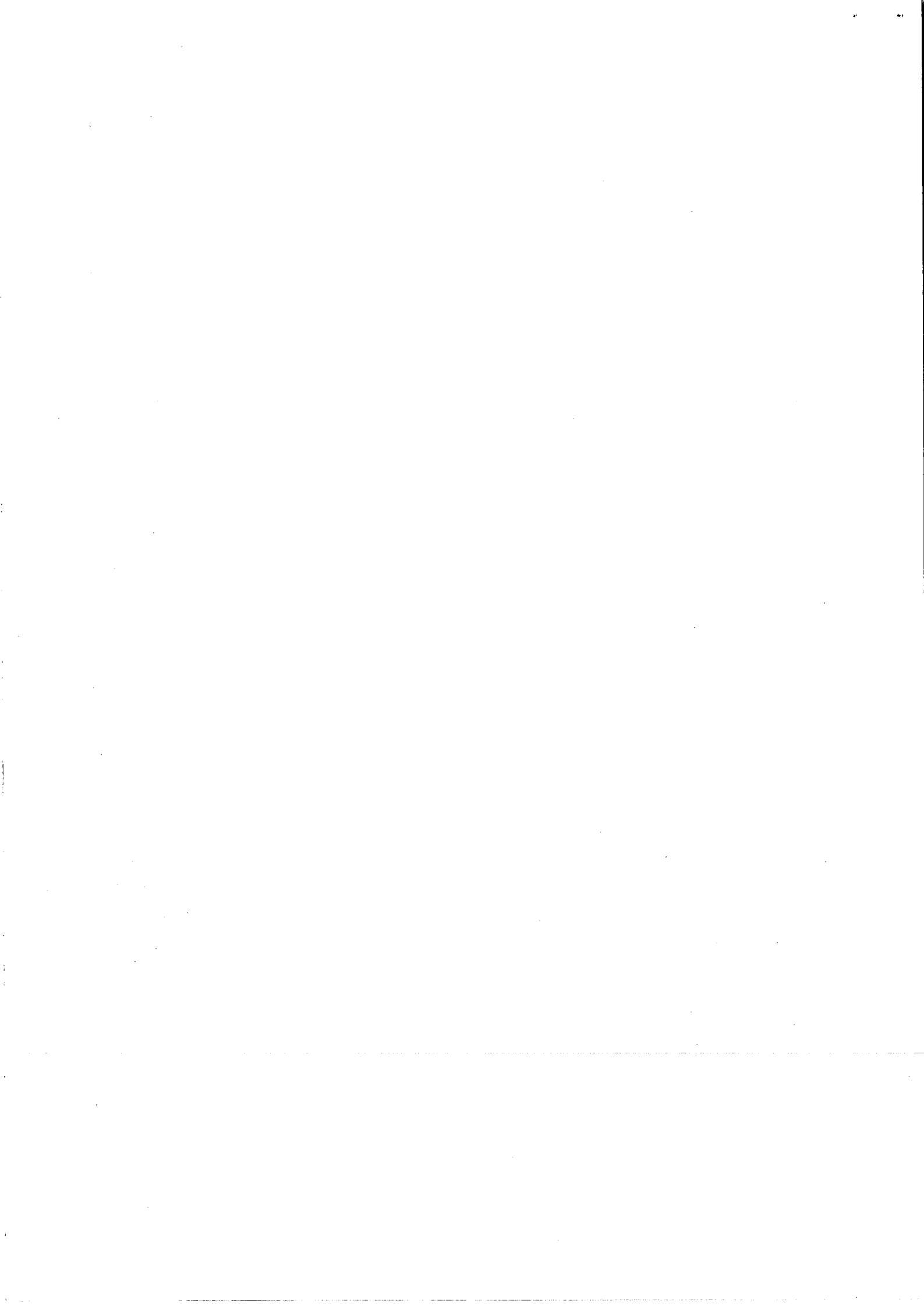
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(Signature)

15/03/17



Marking Memo

Grade 10 Geography

1.1.1 a) X - cold front ✓ (2)
 Y - warm front ✓

b) Coastal low ✓

c) - A - S.A.H ✓ (3)
 B - Kalahari High
 C - S.I.H ✓

1.1.2. Winter - cold front passing over continent ✓ (3)

- Position of S.A.H & S.I.H - northwardly - close to continent
 - Date - 6th Month - June - Winter in S. Hemisphere

1.1.3. a) 20° ✓

b) S. Easterly ✓

c) 15 knots ✓

d) overcast ✓

(8)

1.2.1. A - troposphere ✓

C - Mesosphere ✓

D - Thermosphere ✓

(3)

1.2.2. Tropopause ✓

1.2.3. - White, curly, and feathery.

Appears in blue skies - No R/Fall.

1
(2)

1.2.4 10km ✓

2

1.2.5. O₂ / Nitrogen / Argon

2

1.2.6. No life on Earth / starvation / No food / crops

2

Plants, animals & humans will not survive - die.
 Skin Cancer

- 1.3.1. 1 - Freezing ✓
2 - Condensation ✓
3 - Sublimation ✓
4 - Evaporation ✓
5 - Melting ✓

1.3.2 Water cycle diagram?
Mark allocation.
Done!

- 1.4.1. a) - Increase in average temperatures of the world.
b) Trapped heat in the atmosphere. //

(4)

1.4.2. CO_2 , Methane, CFC^s , Nitrous Oxide any 2

- 1.4.3. - Cant grow crops/vegetables - heavy rains + high T°
- People die in storms } any 2
- People left homeless. //

(4)

1.4.4. - Educⁿ Campaigns //

- Encourage people to adopt a green lifestyle
- Municipality - strict by-laws - prohibit people from
certain activities - promote good practices

(4)

Section B - Mapwork + GIS

Question 2.

- 2.1. a ✓
2.2. b ✓
2.3. c ✓
2.4. a ✓
2.5. b ✓

(5)

Question 3.

- 3.1. Computer system - capturing, storing & analysing/displaying geographic data - pose & answer geographical questions
- 3.2. (i) Meteorology - eg. track path of Tropical Cyclone/hurricane
(ii) Crime Prevention: - crime patterns - allocate officers in correct places. } any 2
(iii) Retail Industry: - Pick n Pay - map change in store sites before & after advertising campaign. See where advert is most effective
- 2.3. Show earth which is spherical/round/cylindrical on a flat piece of paper. 2
- 2.4. Point, line, Polygon. 3
- 2.5. Raster - real world represented by grid cells → PIXELS
Vector - real world represented by points, lines & polygons. 2

