TEACHERS WITHOUT BORDERS PROGRAMME

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In Bill Gates words, at the Mandela Day 'Living Together' address: "Maintaining the quality of this country's higher education system while expanding access to more students will not be easy. But it's critical to South Africa's future" – working together, we can help achieve this."

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Herzlia High	Rondebosch Boys'	St Mary's DSG Kloof	Wynberg Secondary

Grade 8 June 2013

Time: 1.5 hours **GEOGRAPHY Paper 1** Marks: 120

Instructions:

- Answer ALL questions.
- Number all your questions as they are numbered on the question paper.

Section A: Climate

Question 1: Multiple choice

Choose the best answer and write ONLY the NUMBER and LETTER. e.g. 1.11 D

1.1 Which combinations are true for wind?

A ii and iii
B i and iv
C ii
D All of the above

i) The direction of wind is always described according to the direction in which it is going.
ii) Wind will always blow if there is a difference in pressure.
iii) Air always moves from a high pressure to a low pressure.
iv) In the Southern Hemisphere, wind is deflected to your right if you stand with your back to the wind.

1.2 Temperature decreases with an increase in altitude at an average rate of…

A 0, 65°C / 100m
B 6, 5°C / 100m
C 0, 65°C / 1000m
D 65°C / 1000m

1.3 Places near the equator are warmer than places near the poles because…

A i, ii and iv
B ii, iii and iv
C i, iii and iv
D i, ii and iii.

i. The sun's rays reach the poles at an oblique angle.
ii. The sun's rays are concentrated over a smaller area at the equator.
iii. The sun's rays reach the equator at a perpendicular angle.
iv. At the equator, the sun's rays pass through a larger volume of air so there is more chance of reflection and scattering of the sun's rays.

1.4 The force deflecting air movement in the atmosphere is known as …

A gravity
B coriolis force
C Ferrel's Law
D momentum

1.5 In the northern hemisphere ……facing slopes are warmer.

A south
B north
C east
D west

1.6 An isobar can **best** be described as…

A lines joining areas with similar pressure
B areas of equal air pressure
C pressure lines on a map
D a line joining places of equal air pressure

1.7 Relief rain is also called ……. rain

A Orthographic
B Orographic
C Leeward
D Rainshadow

1.8 A …… wind blows before a cold front passes over Cape Town.

A NW
B SW
C NE
D SE

1.9 A low pressure cell is also called a / an ……..

A anticyclone
B cyclone
C ridge
D warm cell

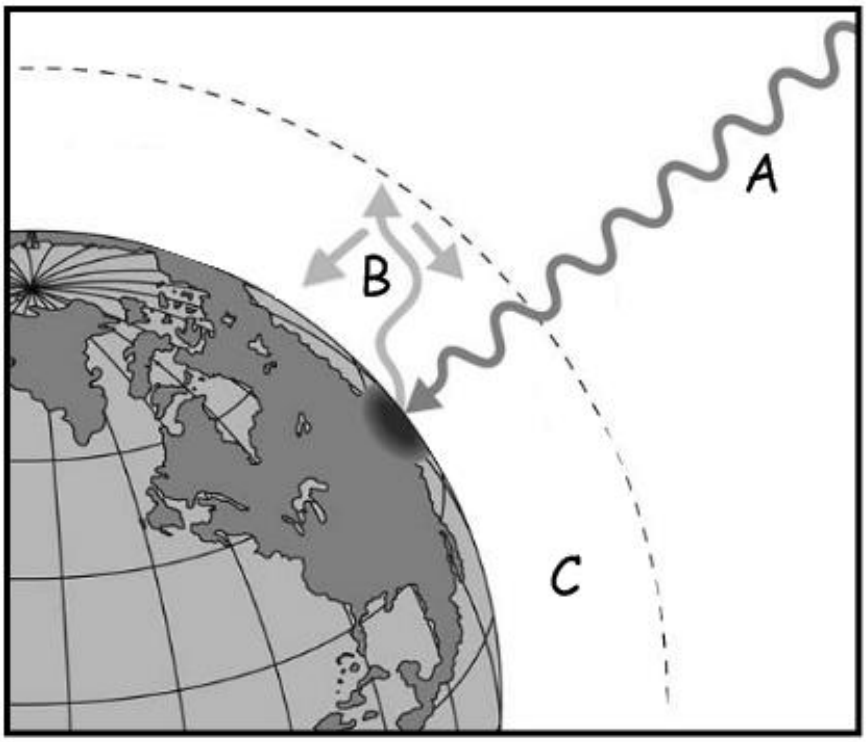
1.10 A land breeze is strongest at…

A 4am
B 4pm
C midday
D midnight

[10x1=10]

Question 2:

Study the diagram below and answer the questions that follow.



2.1 Letter A represents short wave radiation. Provide another term for short wave radiation. 1x2=2

2.2 Letter B represents long wave radiation. Provide another term for long wave radiation. 1x2=2

2.3 Letter C represents the atmosphere. Name the two constant gases that comprise most of the atmosphere and state their relevance. 2x2=4

2.4 Name two variable gases in the atmosphere and give a source for each. 2x2=4

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Question 3:

3.1 Complete the table below. You do **not** need to redraw the table, write only the question number and appropriate word/words.

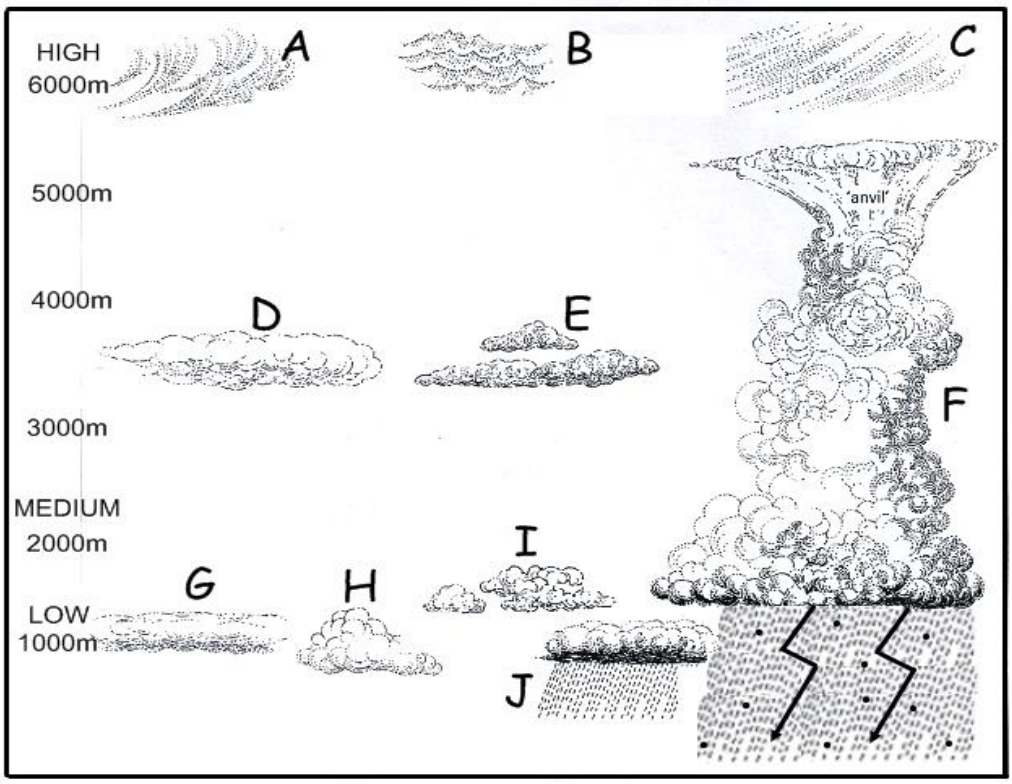
WEATHER	INSTRUMENT	UNIT OF MEASUREMENT
3.1.1	Anemometer	Metres / second
Humidity	**3.1.2**	Percentage
3.1.3	Barometer	**3.1.4** .....
Rainfall	**3.1.5**	Millimetres
Sunshine	Sunshine recorder	**3.1.6** .....

6x1=6

3.2 Provide a definition for weather. 4x1=4

3.3 Name three ways that weather is collected. 3x1=3

3.4 Study the diagram below and answer the questions that follow.



3.4.1 Name the cloud types at B, D, G, H and J. 5x1=5

3.4.2 Name the type of rainfall that is associated with the cloud labeled F. 1x2=2

3.4.3 Name a cloud that is a forerunner to 'bad' weather or a change in weather. 1x2=2

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Question 4:

Study the table below and answer the questions that follow.

GAS	Increase in emissions per year	Number of years the gas remains in the air	Contributions of Greenhouse gas
Carbon Dioxide	0,5%	7	50%
Methane	1,0%	10	18%
CFC's	6,0%	100	14%

4.1 Which gas makes the greatest contribution to the Greenhouse effect? 1x1=1

4.2 Which Greenhouse gas emissions increase the most per year? 1x1=1

4.3 How long do CFC's remain in the air for? 1x1=1

4.4 Name one source for each of the following Greenhouse gases.

4.4.1 Nitrous oxide

4.4.2 Methane 2x1=2

4.5 Name one Greenhouse gas **not** mentioned in the table or question above. 1x1=1

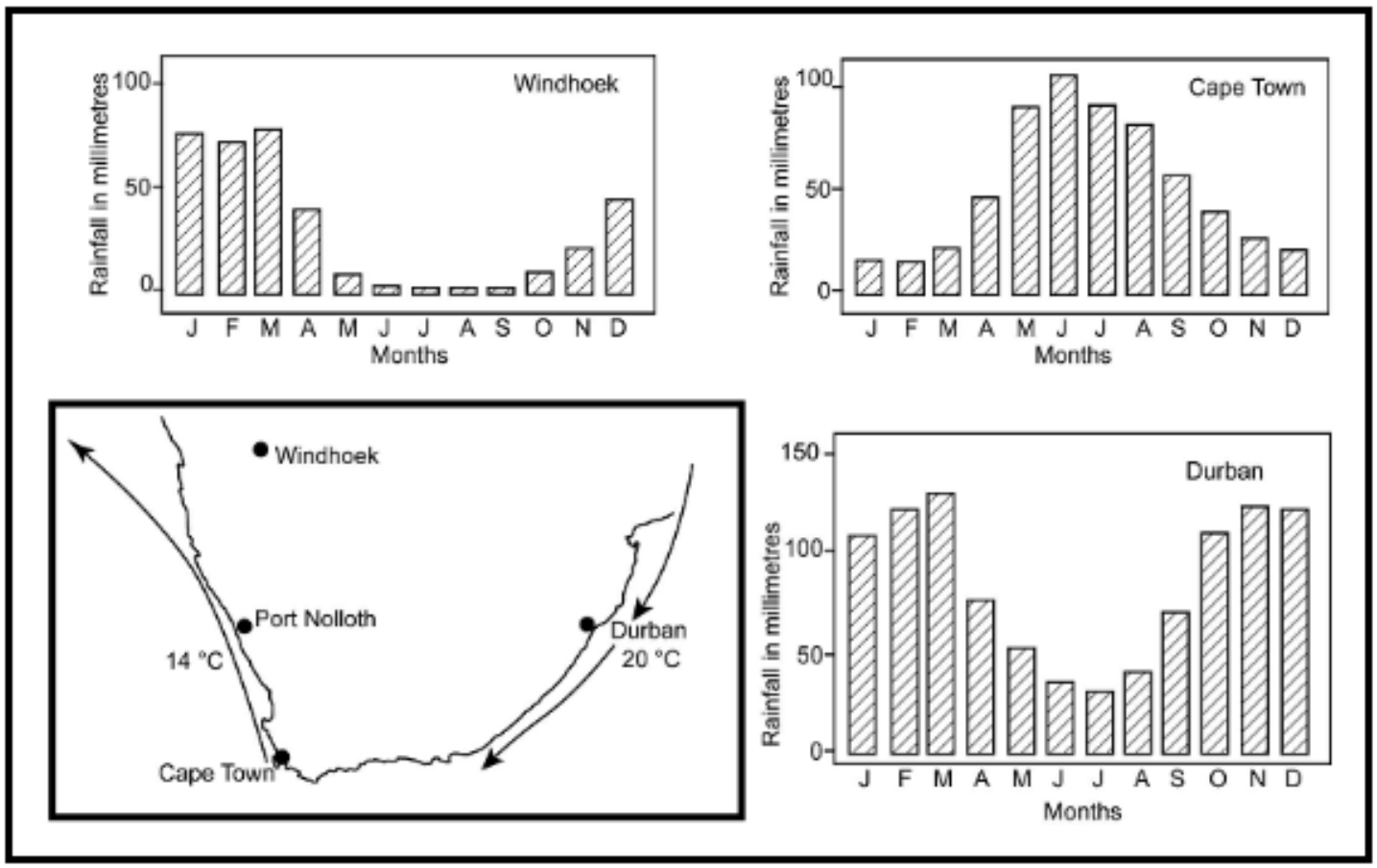
4.6 Define the term global warming. 3x1=3

4.7. Name two consequences of global warming. 2x2=4

[13]

Question 5:

Study the rainfall graphs and the sketch map and answer the questions that follow.



5.1 Refer to the rainfall graph of Cape Town. During which month does Cape Town receive its highest rainfall? 1x1=1

5.2 Which of the three cities experiences the highest annual rainfall? 1x1=1

5.3 Explain why Port Nolloth and Durban's average temperatures are so different. 2+2=4

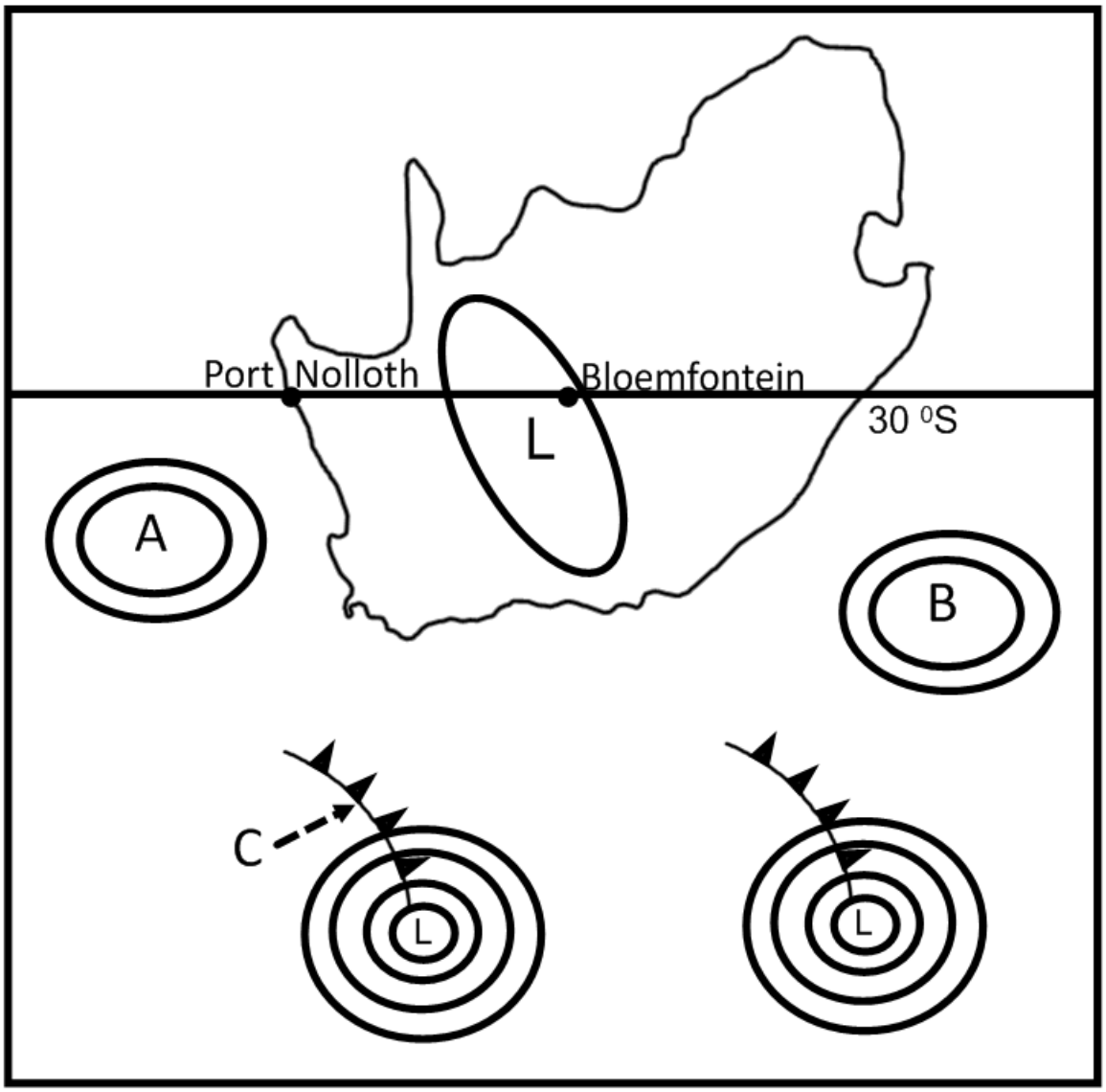
5.4 Cape Town experiences both sea breezes and land breezes. Draw a labelled diagram to represent a **sea breeze**. 4x1=4

5.5 Cape Town receives most of its rain in winter. Name the type of rain Cape Town receives and briefly explain how it occurs. 1+4=5

[15]

Question 6:

Study the simplified synoptic map below and answer the questions that follow.



6.1 Name the high pressure cell at B. 1x2=2

6.2 Describe how air moves around the high pressure cell at A. 3x1=3

6.3 Name the feature at C. 1x2=2

6.4 Do you think this map represents summer or winter conditions? Give two reasons (map evidence) to support your answer. 1+ (2x2)=5

6.5 '***The temperature range for Port Nolloth is 5 °C and the temperature range for Bloemfontein is 20 °C'.*** Explain why Port Nolloth's temperature range is so much lower than Bloemfontein's. 2+2=4

6.6 What type of rainfall occurs in Bloemfontein ? 1x2=2

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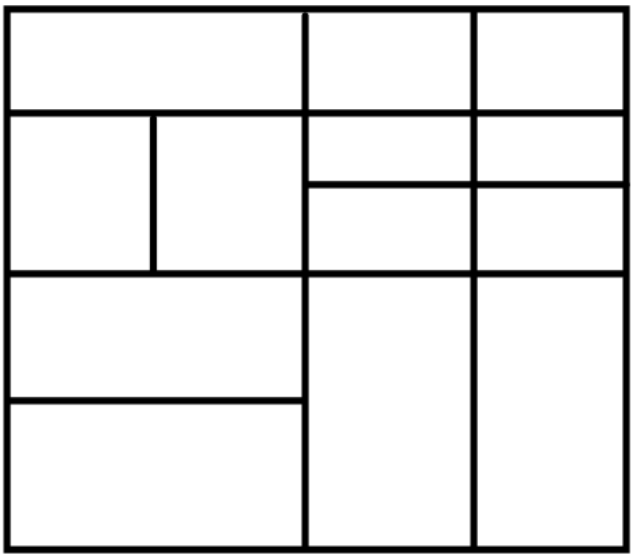
SUB TOTAL 90

Section B: Transport

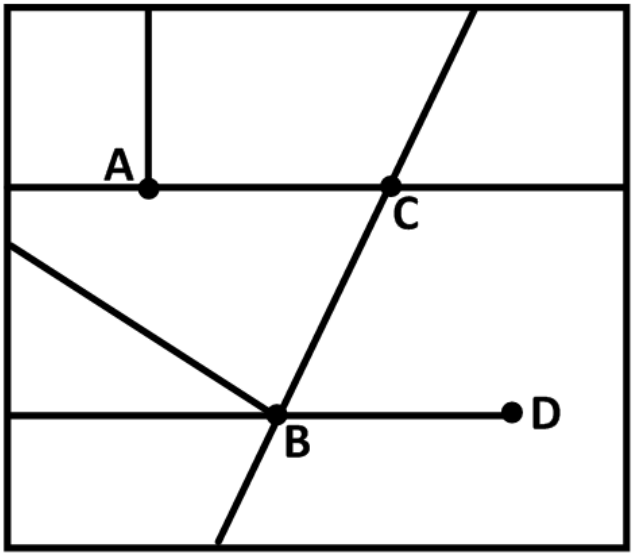
Question 7:

Study the diagram below showing examples of transport routes in two settlements and answer the questions that follow.

Example X



Example Y



7.1 Give a definition of a transport system. 4

7.2 Which letter in example Y represents a town that is **not** a node? Give a reason for your answer. 1+1=2

7.3 Your choice of transport route could be affected by "affordability". Give a definition of affordability. 3x1=3

7.4 Name TWO other factors that could have influenced your choice of transport route. 2x1=2

7.5 Which settlement above has a greater transport density? Give a reason for your answer. 1+2=3

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Question 8:

Read the article below from *www.news24.com* and answer the questions that follow.

French firm in bid to trademark Rooibos Tea	22/02/2013 *SAPA*
Johannesburg - A French firm's attempt to trademark Rooibos could have a "significant negative impact" on South Africa's exports of Rooibos products to France, the department of trade and industry (DTI) said on Thursday. "The DTI stands ready to defend South Africa's trade and intellectual property interests vigorously," minister Rob Davies said in a statement. The department said Rooibos tea is made from the leaves of a unique shrub, indigenous only to South Africa.	

8.1 What does the abbreviation 'DTI' stand for? 1x2=2

8.2 Provide a definition for trade. 2x2=4

8.3 South Africa exports Rooibos tea to France. What does it mean to 'export' something? 1x2=2

8.4 What type of transport would you choose to export Rooibos tea to France? Give a reason for your answer. 2x2=4

8.5 Provide a definition for Globalisation. 4x1=4

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SUB TOTAL 30

TOTAL 120