

Hillcrest High School

November 2015

Marks: 240

Geography

Grade 8

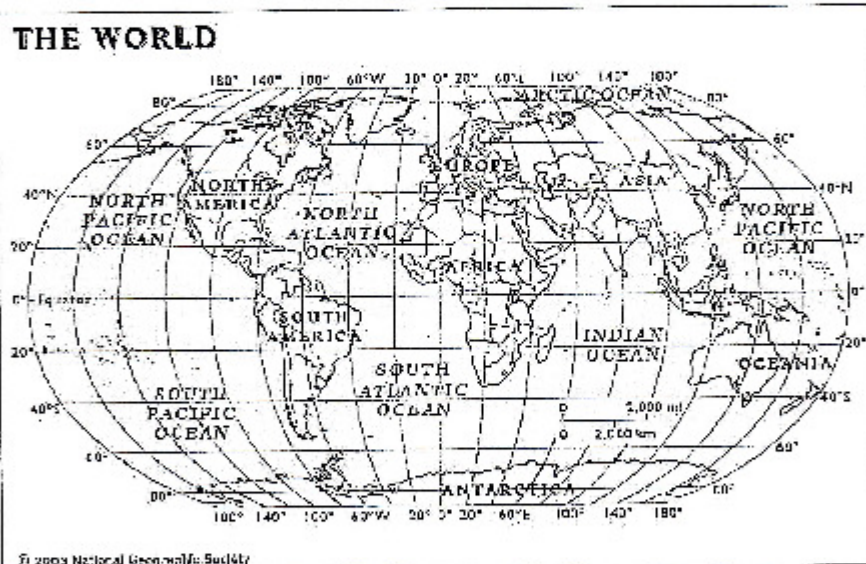
Time: 2 Hours

Examiner: C. Maseley

Instructions: 1. Answer all the questions in this paper.

2. Write all answers in the answer book provided.
3. Number your answers exactly as the questions are.
4. Write clearly and read questions carefully.

Question One Latitude and Longitude.



- 1.1 What do the lines of longitude on this map represent? 2
- 1.2 Which lines on this map are parallel to one another? 1
- 1.3 At what interval are the lines on this map drawn? 1
- 1.4 State one reason why co-ordinates are useful to us. 2
- 1.5 State the value in degrees of:
 - a. The Greenwich meridian.
 - b. The international date line
 - c. The North Pole 3

1.6 What type of scale represented on this map? Rewrite the scale as a ratio scale as follows:

1: _____

3

1.7 Measure the distance in kilometres between Durban and the west coast of Australia.

2

Question Two Study the map of South Africa below:

2.1 State the value of the tropic of Capricorn in degrees.

7

2.2 Give the approximate coordinates of:

a. Durban

b. Cape Town

4

2.3 Is this a physical, political or thematic map? Give a reason for your answer.

3

2.4 Suggest a reason why the interval between the latitude and longitude lines on this map are smaller than those on the world map used in the previous question.

2

2.5 Name the province.

a. located at 30°S 25°E

b. in which Pretoria is located.

c. located furthest North in South Africa

d. where Johannesburg is the capital

4

2.6 Give the coordinates in degrees of South Africa's capital city.

2

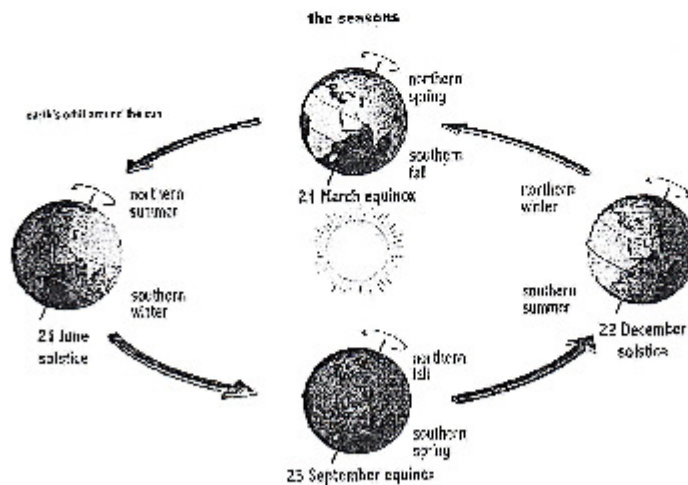


- 2.7 Calculate the straight distance between Durban and Bloemfontein. 2
- 2.8 Name a river which flows along the Northern boundary of South Africa. 1
- 2.9 Which ocean has:
- the Benguela current flowing in it.
 - experiences generally warm temperatures.
- 2.10 Using your knowledge of factors that affect temperature explain one reason why Port Elizabeth could be cooler on average than Durban. 3
- 2.11 Cape Town and Bloemfontein experience different climates due to their distance from the sea. Which city will:
- experience a larger difference between summer and winter temperatures.
 - experience frost.
 - experience hotter summer temperatures.
 - be maritime.

[Total q 1 and 2- 43]

Question Three

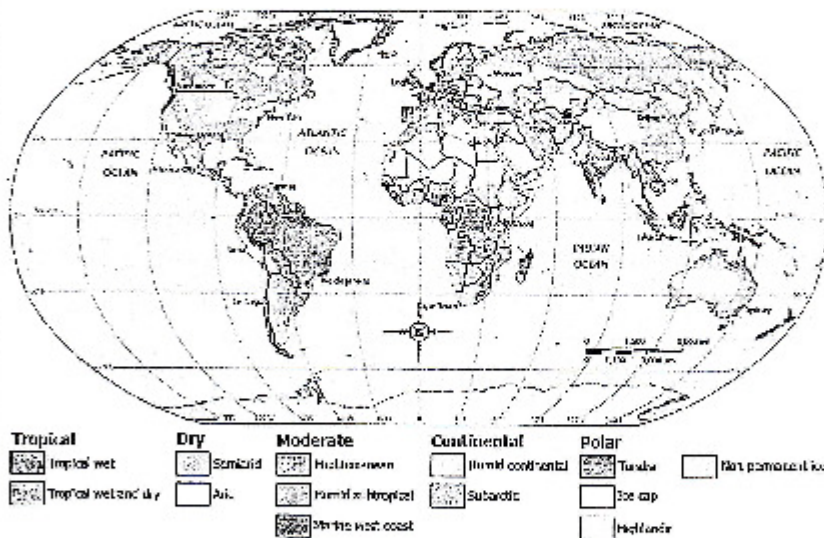
Study the diagram below illustrating the earth's movements around the sun.



- 3.1 State the two factors which are responsible for the phenomenon of seasons 2
- 3.2 What is causing the southern hemisphere to experience summer on the 22nd of December? 4
- 3.3 What is an equinox? What effect does it have on us? 4
- 3.4 What conditions do South Africans experience on 21st June? 2
- 3.5 On what date is the autumn equinox in South Africa? 2
- 3.6 In which direction does the earth rotate on its axis? Why is this significant? 2

[16]

Question Three Climatic Regions of the world





- 3.1 What is climate? 2
- 3.2 Name a climatic region that:
- experiences low rainfall
 - experiences year round high temperatures and high rainfall
 - experiences hot dry summers and cool, wet winters
 - makes up the largest area of Africa
- 4

- 3.3 Why does latitude affects the climate of places? 2
- 3.4 Account for the position of the ice caps on the earth. 3
- [11]

Question Four The elements of weather

Study the weather report for Sunday may 10th and the forecast for the week ahead.

LOW 16°C HIGH 24°C

Wind Speed	9km/h	Sunrise	6:29AM
Wind Direction	W	Sunset	5:15PM
Humidity	60%		
Dew Point	13	 Moonrise	10:07PM
Comfort Level	21°C	 Moonset	10:58AM
Chance of Rain	33%		
Earth crust:			

7 Day Forecast

Sunday	
18°C - 25°C	
Monday	
17°C - 23°C	
Tuesday	
18°C - 24°C	
Wednesday	
17°C - 24°C	
Thursday	
17°C - 28°C	
Friday	
16°C - 22°C	
Saturday	
17°C - 24°C	

- 4.1 Write a brief description of the weather condition for Sunday. Do not just copy out the figures from the table. 4
- 4.2 Work out the temperature range for Monday. 2
- 4.3 Calculate the average maximum temperature for the week. 2
- 4.4 What causes wind? 2
- 4.5 What is humidity? Suggest why this element of weather is important to measure. 3
- 4.6 Durban is situated at sea level while Hillcrest is at 750 metres above sea level
 a. Suggest how this fact affects the temperature of the two places. Explain why. 3
- 4.7 How will the cloud cover during the week affect the temperature of Durban on Saturday? Explain why. 3
- 4.8 Name the type of precipitation that could occur on Sunday. 2
- [21]

Question Five

Study the extract below from a web page showing time zones in different regions of Africa.

Codes and names for standard and daylight time in Africa.

Abbreviation	Time zone name	Other names	Offset
CAT	Central Africa Time		UTC +2:00
CET	Central European Time	MEZ	UTC +1:00
CVT	Cape Verde Time		UTC -1:00
EAT	Eastern Africa Time		UTC +3:00
EET	Eastern European Time	OEZ	UTC +2:00
GMT	Greenwich Mean Time		UTC +0:00
MUT	Mauritius Time		UTC +4:00
RET	Reunion Time		UTC +4:00
SAST	South Africa Standard Time		UTC +2:00

- 5.1 Why is it that these places experience different times?
 Explain in a line or two. 2
- 5.2 What does UTC stand for? 2
- 5.3 If the time along the Greenwich meridian is 12:00 am what time will it be in Hillcrest, Durban? 2

5.4 Explain why Cape Verde (like many places) is (minus) 1 hour while the other time zones shown here are all+ (plus) time. 2

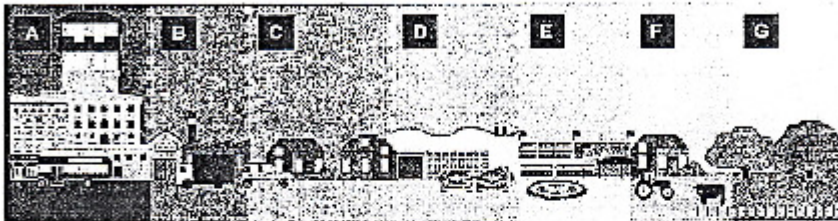
[8]

Section B

Human geography

Question One

Urban settlements



A	CBD offices and shops	E	New business district
B	Inner city factories and tenements	F	Rural-urban fringe
C	Modern suburbs (post 1945)	G	Greenbelt
D	New Industrial zone		

1.1 Why does this image represent an urban and not a rural area? 2

1.2 List two activities that take place in the central business district. 2

1.3 Name the land use from the picture that:

a. is normally in the centre of a city or town

b. causes environmental problems

c. normally has the highest land values

d. takes up the biggest area in any city 4

1.4 What is a suburb? Suggest why suburbs are located away from the city centre. 3

1.5 Suggest a reason for the development of a new business district away from the old CBD. 4

1.6 Explain two ways in which transport development can help alleviate the problem of traffic congestion in zones A and B. 4

1.7 Urbanisation is affecting cities all over the world and in South Africa.

What is urbanisation? 2

1.8 Describe two effects that urbanisation has had on cities like Durban. 4

[25]

Question Two

Study the image below of a settlement on the outskirts of Cape Town.



2.1 What kind of settlement is this? 2

2.2 Highlight two problems/ challenges that this kind of settlement creates for cities and their residents. 4

Question Three Transport in South Africa's urban areas.

The following is an extract from the "GO DURBAN" Transport development initiatives website.

What is Bus Rapid Transit (BRT)?

Bus Rapid Transit (BRT) is a high-quality bus-based transit system that delivers fast, comfortable and cost-effective urban mobility through the provision of segregated right-of-way infrastructure, rapid and frequent operations and excellence in marketing and customer service.

6.1 Why is public transport the preferred method of transport development in most modern cities today? Suggest two reasons. 4

6.2 Do you think min-bus taxi transport in Durban should be replaced with the Bus Rapid Transit system such as the one described? Give reasons for your answer. You may state problems that may come about with the new system as well. 6

[16]