

Grade 8

Hillcrest High School

Time: 1 hour

June 2019

Geography Exam

Marks: 70

Examiner: CR Madeley

Moderators: P. Ramsern, M. Mclaughlin

---

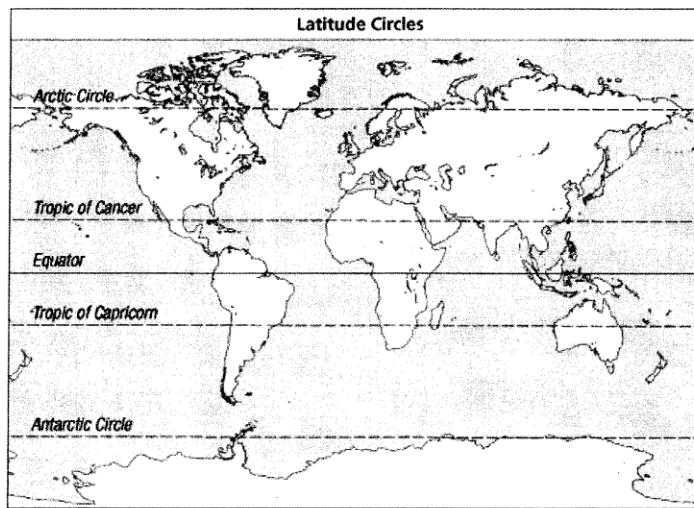
**Instructions:** Attempt all the questions in this paper.

Answer all the questions on the answer booklet provided

Number your answers exactly as the questions are.

Write neatly and pay attention to the mark allocation.

---

**Question One****Using coordinates**

Source: free  
maps library

© Infobase Publishing

- 1.1 State what latitude measures. (1)
- 1.2 Give the location in degrees of:
- a. the Arctic Circle
  - b. the tropic of cancer (2)
- 1.3 Explain why latitude lines are also called "great circles" (1)

1.4 Name two continents that occur within the tropics. (2)

1.5 Give another name for " lines of longitude." (1)

1.6 Study the image below:

### Degrees Minutes Seconds to Decimal Degrees

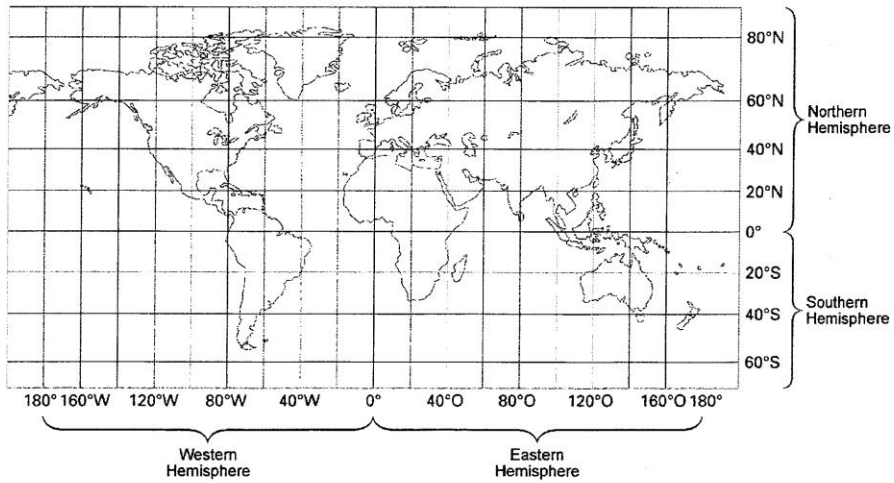
Enter Degrees Minutes Seconds latitude:	-48	52	36
Enter Degrees Minutes Seconds longitude:	-123	23	35
Convert to Decimal		Clear Values	
Results: Latitude:	48.876667	Longitude:	123.393056

Source: GIS lounge

a. Why is it necessary to subdivide degrees into minutes and seconds? (2)

b. Explain how we subdivide a degrees into minutes and seconds. (2)

1.7. Use the map below to complete some general world knowledge questions.



1.7.1 Name the ocean through which:

- a. the Greenwich meridian passes
- b. the International Date Line passes (2)

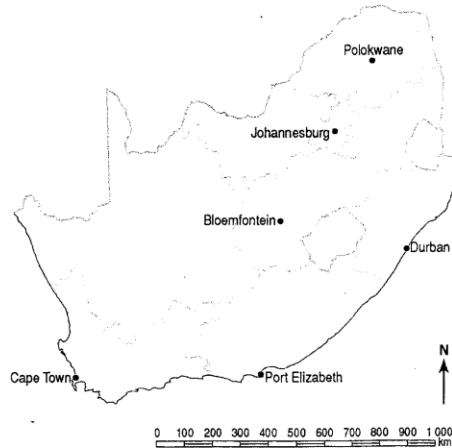
1.7.2 Explain the significance of the International Date Line. (180°) (3)

1.7.3 Name the continents that have the following coordinates:

- A. 20° S 50° W
- B. 20° N 80° E (2)

**Question Two Maps and using map scales**

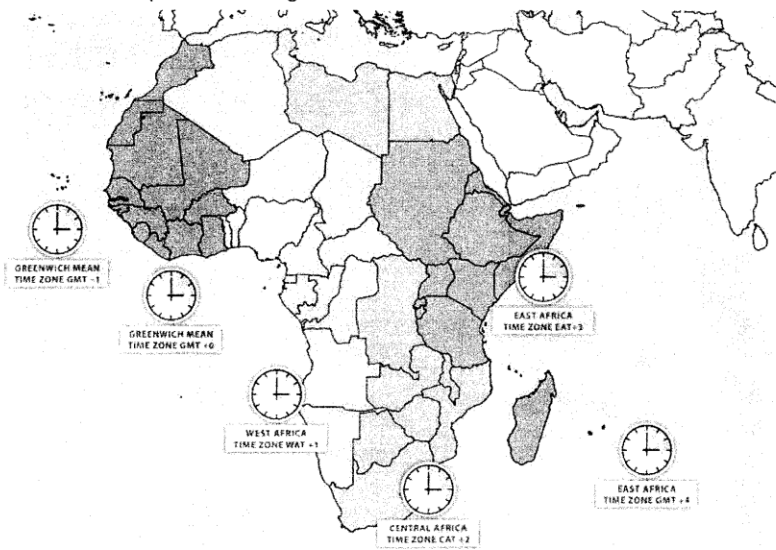
Use the two maps below to answer the following questions.



- 2.1 State which map has the larger scale. Explain your answer. (3)
- 2.2 Name the type of scale printed on the two maps. (1)
- 2.3 Calculate the distances between:
- Cape Town and Nairobi
  - Port Elizabeth and Bloemfontein. (2)
- 2.4 State the *direction* of:
- the East African capital city from Cape Town. (1)
  - the capital city of Gauteng province from the capital of Limpopo (1)
- 2.5 Name the type of map we would use to represent the relief features of Africa. (1)

### Question Three Time Zones

Refer to the map below showing standard time across Africa.



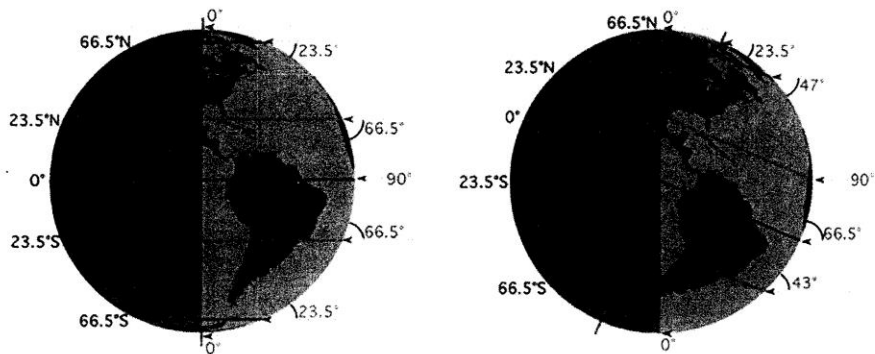
- 3.1 Where is Greenwich mean time/UTC calculated from? (1)
- 3.2 Why are lines of longitude used as time zones references? (2)
- 3.3 Suggest why West African time is 1 hour ahead of Greenwich Mean Time. (2x1=2)

3.3 South Africa falls within Central African Time. Name the line of longitude from which this time zone is taken. (1)

3.4 Assume the time in Durban is 8pm. What will the time be in Kolkata, located at  $90^{\circ}$  E degrees east be? (2)

#### Question Four

The diagram below shows the relationship between the sun's rays and the earth's surface at a solstice and an equinox.



4. The diagram on the left indicates an equinox and the diagram on the right shows a solstice.

4.1 Explain why there is equal day and night at all places during the equinox. (2)

4.2 Give the date when Durban experiences the autumn equinox. (1)

4.3 State the **three factors** that result in the seasons occurring. (3)

4.4 Which hemisphere is experiencing summer in this diagram? Explain why. (4)

#### Question Five Satellites and their uses



The NASA Jason 2 satellite above carries tools and sensors to study the earth oceans.

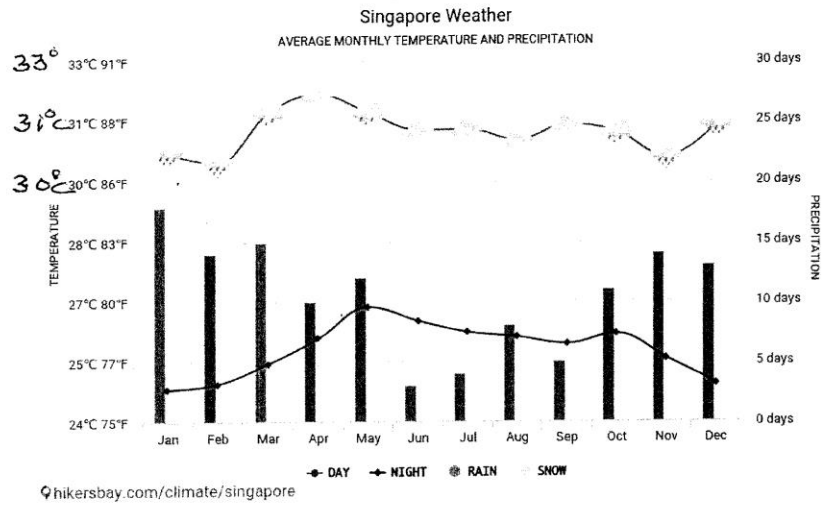
- 5.1 State two reasons why satellites are so useful in studying large areas like oceans? (2)
- 5.2 Explain briefly what a communication satellite does. (2)
- 5.3 State two parts of a typical satellite that help it do its job. (2)
- 5.4 Describe two ways in which satellites may help us deal with global problems (4)

## Question Six

## Climatic regions of the earth



- 6.1 Define the term *climate*. (1)
- 6.2 Why is latitude so important in affecting climate? (2)
- 6.3 State two other important influences on the climate of a region. (2)
- 6.4 Explain how one of these factors you named in 6.2 affects climate. (4)
- 6.6 Study the graph below showing the rainfall and temperature for Singapore.



- a. In which climatic region is Singapore likely to occur? Justify your answer with reference to the graph. (4)
- b. Calculate and comment on the *temperature range* for Singapore. (2)