



Parktown Boys High School

Geography Department

Grade 8 June Exam

Examiner: Mr A Meintjes

Time: 90 Minutes

Moderator: Mr J Kotwal

Total: 90 Marks

Date: 27th June 2014

INSTRUCTIONS:

1. PLEASE COMPLETE ALL ANSWERS IN THE ANSWER BOOKS PROVIDED
 2. WRITE IN A BLUE PEN
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SECTION A – Climate (30marks)

Question 1 - Definitions

PROVIDE DEFINITIONS FOR THE FOLLOWING WORDS:

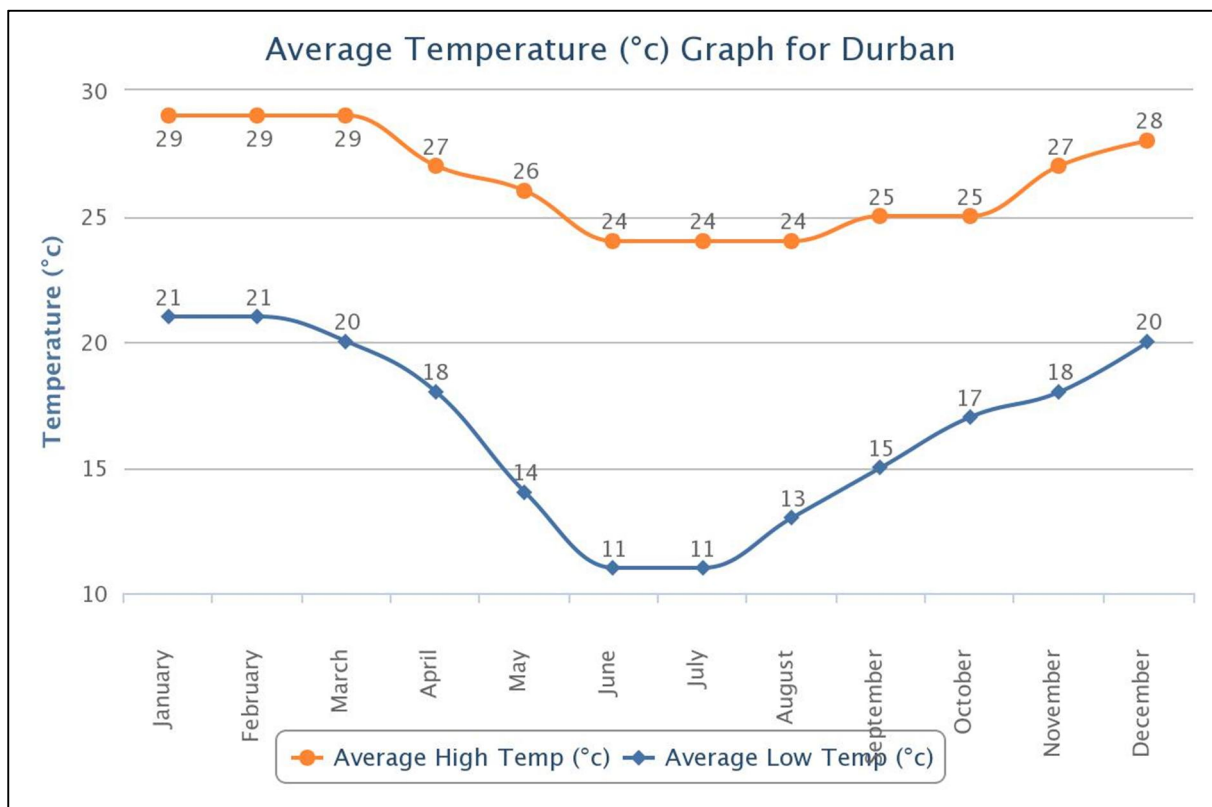
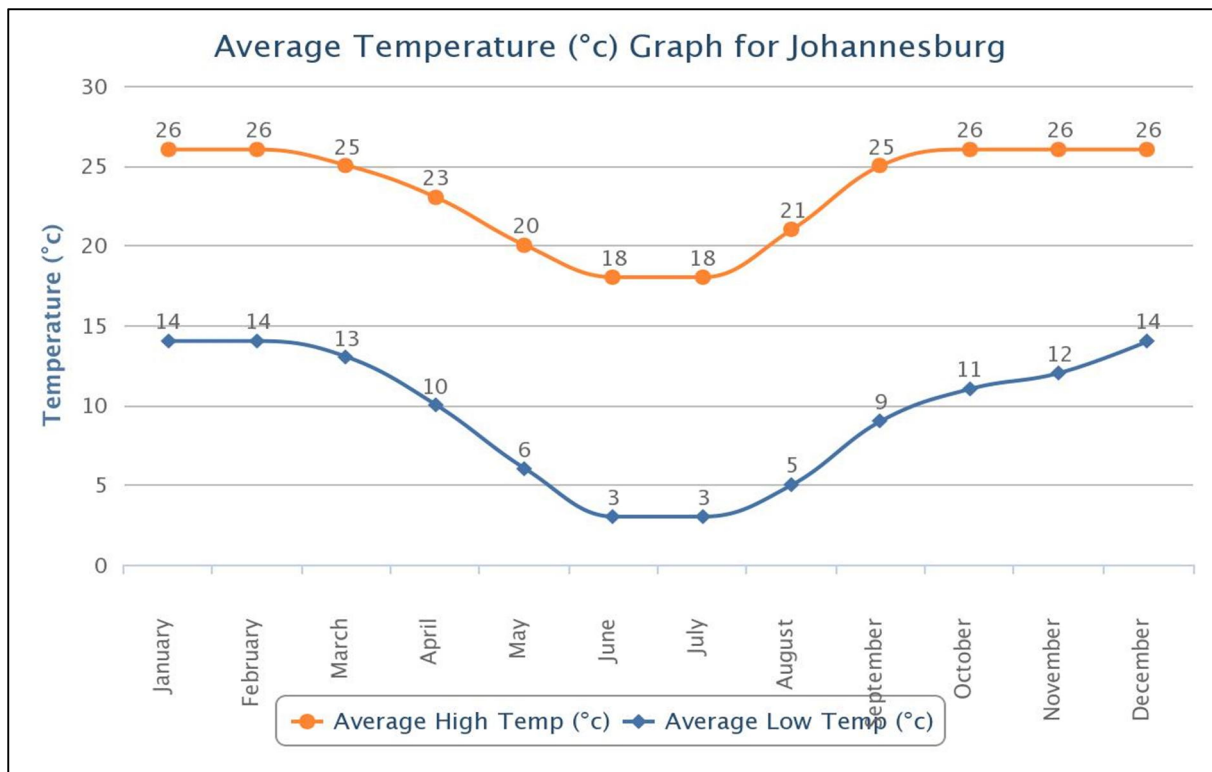
- | | | |
|------|------------|-----|
| 1.1. | Aspect | [2] |
| 1.2. | Escarpment | [2] |
| 1.3. | Humidity | [2] |

Question 2 – Climatic Processes

- | | | |
|------|---|-----------|
| 2.1. | How does distance from the sea effect temperature and rainfall? | [2x2] [4] |
| 2.2. | What is a Plateau? | [2] |
| 2.3. | How does altitude affect temperature and rainfall? | [2x2] [4] |

Question 3 – Data and Application

STUDY THE GRAPHS BELOW AND ANSWER THE QUESTIONS THAT FOLLOW.



- 3.1. Give the **maximum and minimum** temperatures of Johannesburg and Durban for the month of June. [1+1] [2]
- 3.2. Explain why Durban appears warmer than Johannesburg. [2x2] [4]

Question 4 – Climates Around the World Crossword

USING THE CROSSWORD BELOW AS A **GUIDE**, PROVIDE THE CORRECT TERMS FOR THE CLUES IN THE TABLE BELOW.

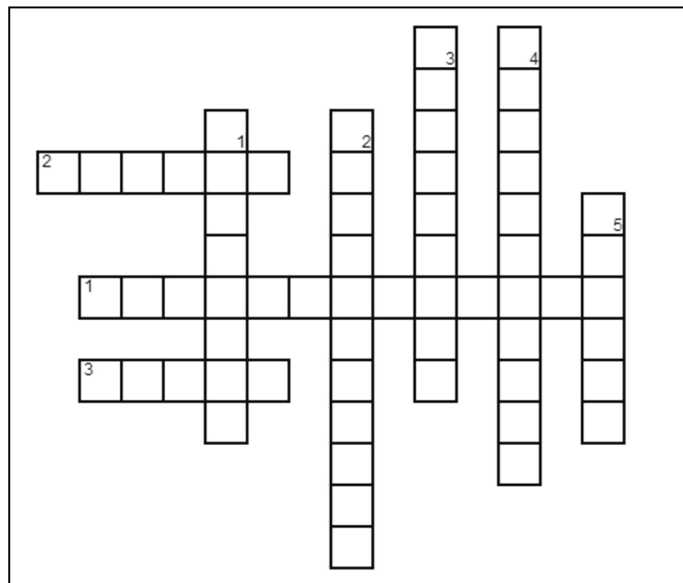
Example in your answer booklets

Across

1. – *Climate type*
2. – *Climate type*
3. – *Climate type*

Down

1. – *Climate type*
2. – *Climate type*
3. – *Climate type*



Across	Down
1. Summers are warm and hot and winters are mild and wet	1. Occurs between the latitudes of around 5° or 10° all the way to 35°
2. A climate that occurs in a region that receives less than 250mm of rain per year	2. Found North and South of the tropical climate
3. Winters are very long and cold here	3. This type of climate can be divided into Maritime and Continental
	4. A climate that is found in the middle of continents and the annual temperature range is high
	5. This climate is characterized by permanent frost

[8 x 1] [8]

SECTION B – Settlement (30marks)

Question 5 – Definitions

PROVIDE DEFINITIONS FOR THE FOLLOWING WORDS:

- 5.1. Nomadic Settlements [2]
- 5.2. Urbanisation [2]
- 5.3. Population density [2]

Question 6 – Features of an Urban Settlement

- 6.1. Describe 4 features of the Central Business District. [4x1] [4]
- 6.2. What is the difference between Light and Heavy Industry? [2x2] [4]
- 6.3. Draw a table in your answer booklets and compare low-income residential areas to high-income residential areas. Your table should have at least 3 characteristics of each residential area. [6x1] [6]

Question 7 – Comprehension

READ THE FOLLOWING TEXT AND ANSWER THE QUESTIONS THAT FOLLOW:

China's toxic air pollution resembles nuclear winter, say scientists

Jonathan Kaiman in Beijing
theguardian.com, Tuesday 25
February 2014 16.00 GMT

Chinese scientists have warned that the country's toxic air pollution is now so bad that it resembles a nuclear winter, slowing photosynthesis in plants – and potentially wreaking havoc on the country's food supply.



Beijing and broad areas of six Northern provinces have spent the past week blanketed in dense pea-soup smog that is not expected to abate until Thursday. Beijing's

China's worsening air pollution has exacted a significant economic toll, grounding flights, closing highways and deterring tourists.
Photograph: STR/AFP/Getty Images



People visiting the Olympic Park amid the thick haze in Beijing. Photograph: Kim Kyung-Hoon/Reuters

concentration of PM (Particle Matter) 2.5 particles – those small enough to penetrate deep into the lungs and enter the bloodstream – hit 505 micrograms per cubic metre on Tuesday night. The World Health Organisation recommends a safe level of 25.

The worsening air pollution has already exacted a significant economic toll,

grounding flights, closing highways and keeping tourists at home. On Monday 11,200 people visited Beijing's Forbidden City, about a quarter of the site's average daily draw.

He Dongxian, an associate professor at China Agricultural University's College of Water Resources and Civil Engineering, said new research suggested that if the smog persists, Chinese agriculture will suffer conditions "somewhat similar to a nuclear winter".

Early this month (February 2014) the Shanghai Academy of Social Sciences claimed in a report that Beijing's pollution made the city almost "uninhabitable for human beings".

The Chinese government has repeatedly promised to address the problem, but enforcement remains patchy. In October (2013), Beijing introduced a system of emergency measures if pollution levels remained hazardous for three days in a row, including closing schools, shutting some factories, and restricting the use of government cars.

Glossary

PM 2.5 particles – Refers to particulate matter that is 2.5 micrometers or smaller in size.

Abate – Make something less intense

- 7.1. What is the concentration of Beijing's PM 2.5 particles? [1]
- 7.2. Is this level of PM 2.5 particles safe? [1]
- 7.3. What are the economic effects of high levels of pollution in Beijing? [2x2] [4]
- 7.4. If you were given control of Beijing's finances and told you could only fix **one** aspect of the pollution problem in this city at this time, where would you focus your resources? **Choose** between Environmental, Economic or Social and Community impacts and **justify your response.** [2x2] [4]

SECTION C – Mapwork (30marks)

Question 8 – Match the column

MATCH THE WORDS IN COLUMN A TO THE WORDS IN COLUMN B. WRITE ONLY THE CORRECT NUMBER AND LETTER IN YOUR ANSWER.

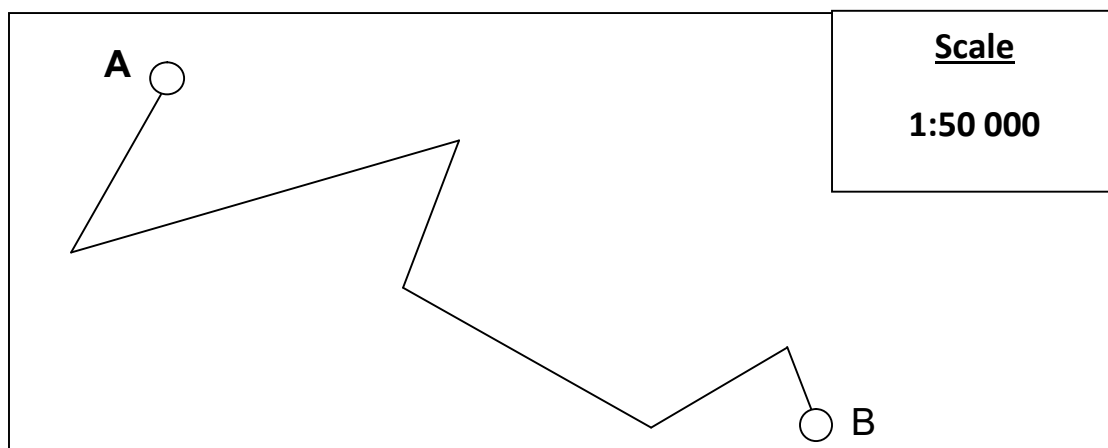
Column A	Column B
8.1) Latitude	a) This is the mathematical way of expressing scale. 1 unit on the ground will be equal to X units on the map.
8.2) Word Scale	b) Is the line of longitude 90° East
8.3) Longitude	c) Is a scale that shows you in accurately drawn measurements how many units are represented on the map
8.4) Ratio scale	d) Parallel lines drawn from pole to pole at angles east and west of the prime meridian
8.5) Tropic of Cancer	e) Is the line of latitude found at 0°
8.6) Prime Meridian/Greenwich Meridian	f) Is the line of longitude found at 0°
8.7) Equator	g) When line scale is stated in words
8.8) Line scale	h) Parallel lines drawn at angles north and south of the equator
	i) Is the line of latitude 23.5° South
	j) Is the line of latitude 90° North
	k) Is the line of latitude 23.5° north

[8x1] [8]

Question 9 – Calculations

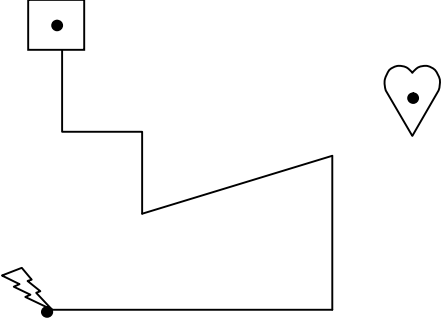
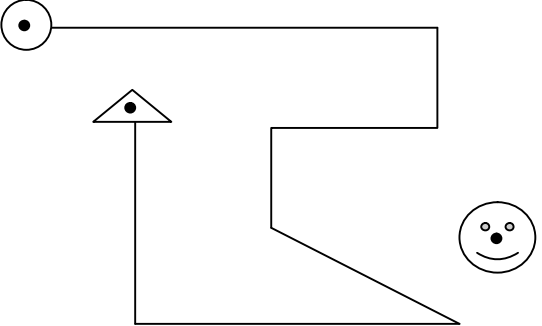
READ THE FOLLOWING SCENARIO AND ANSWER THE QUESTIONS THAT FOLLOW.

- 9.1. Mr Wait recently ran the Comrades Marathon from Durban to Pietermaritzburg. In order to achieve this goal he needed to train frequently. Using the simplified map below calculate the following:



9.1.1. The ground distance that Mr Wait covered on one of his training runs from A to B. [4]

9.2. You have decided that Mr Wait's run was incredibly inspirational and want to prepare for your own races. Use the maps below to **calculate the following (show all your working out):**

Route 1: Square to the Lightning Bolt	Route 2: Circle to the Triangle
	
Scale – 1: 1 500 000	Scale – 1: 10 000

9.2.1. The distance along the road from the Square to the Lightning Bolt in Route 1. [4]

9.2.2. The distance along the road from the Circle to Triangle in Route 1. [4]

9.3. Using the solid black dots in the shapes as a base, give the **Direction** for the following:

9.3.1. From the Lightning Bolt to the Heart in Route 1 [1]

9.3.2. From the Triangle to the Smiley Face in Route 2 [1]

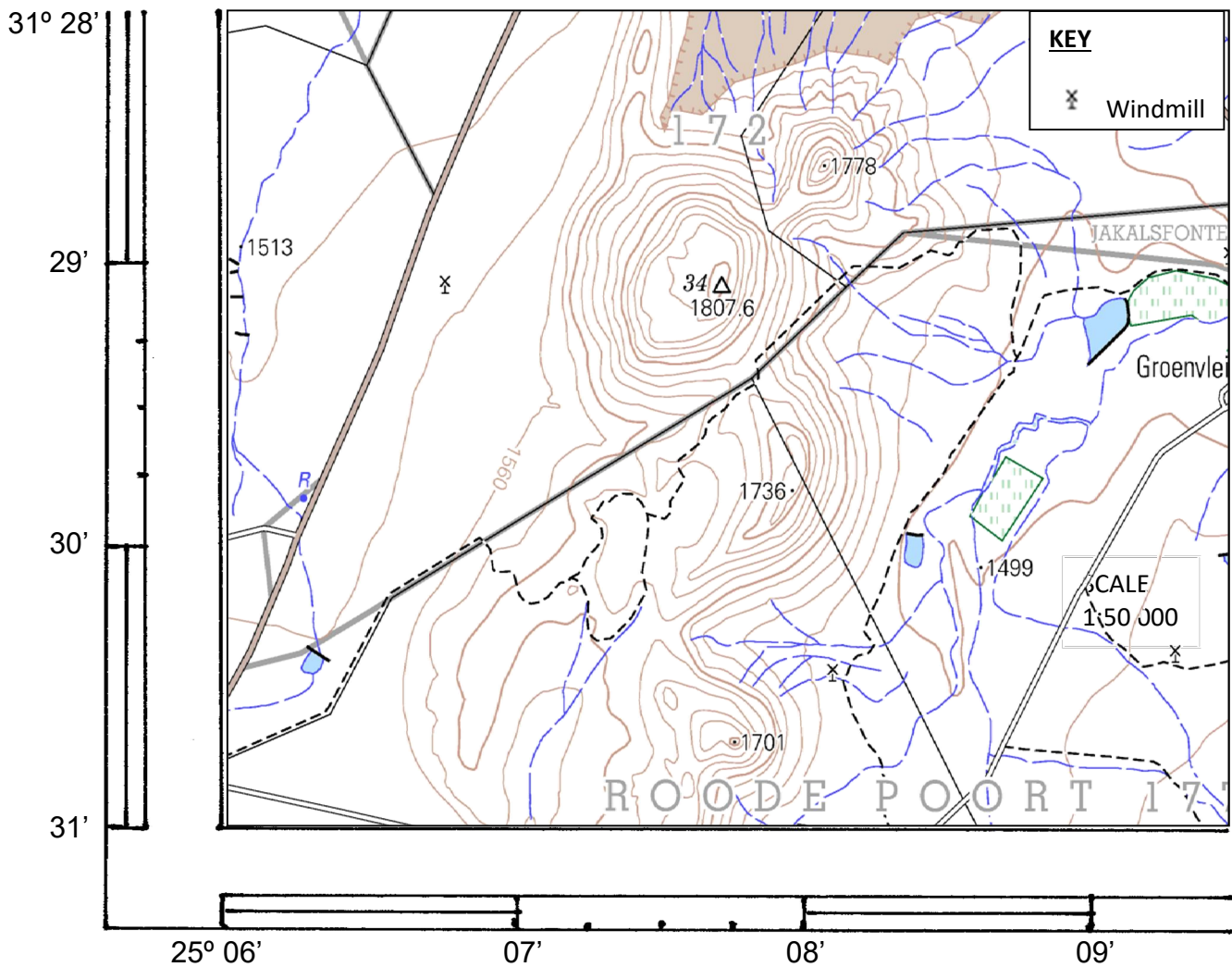
9.4. Using the solid black dots in the shapes as a base, give the **Bearing** for the following:

9.4.1. From the Heart to the Square in Route 1 [1]

9.4.2. From the Circle to the Triangle in Route 2 [1]

Question 10 – Coordinates and Grid Reference

USE THE MAP BELOW AND ANSWER THE QUESTIONS THAT FOLLOW:



Give the coordinates for the following points on the map:

- 10.1. Trig Beacon 34 [2]
- 10.2. The Windmill to the West of Trig Beacon 34 [2]
- 10.3. If the Grid Reference for the above map is 3125AA, what will the Grid Reference for the map *directly South* be? [2]

TOTAL: 90 MARKS