

**KZN DEPARTMENT OF EDUCATION  
GREENBURY SECONDARY SCHOOL  
FIRST QUARTERLY TEST - 2016  
GEOGRAPHY  
GRADE 10**

**EXAMINER : R. RANGANATHAN**

**DATE : 10/03/16**

**MODERATOR : D. RAMASAMI**

**DURATION : 1 HOUR**

**MAX MARKS : 100**

**INSTRUCTIONS**

1. This paper consists of 2 Sections, A and B and 4 Questions.
2. Answer ALL questions.
3. Rule off after each question.
4. Number questions as per question paper.

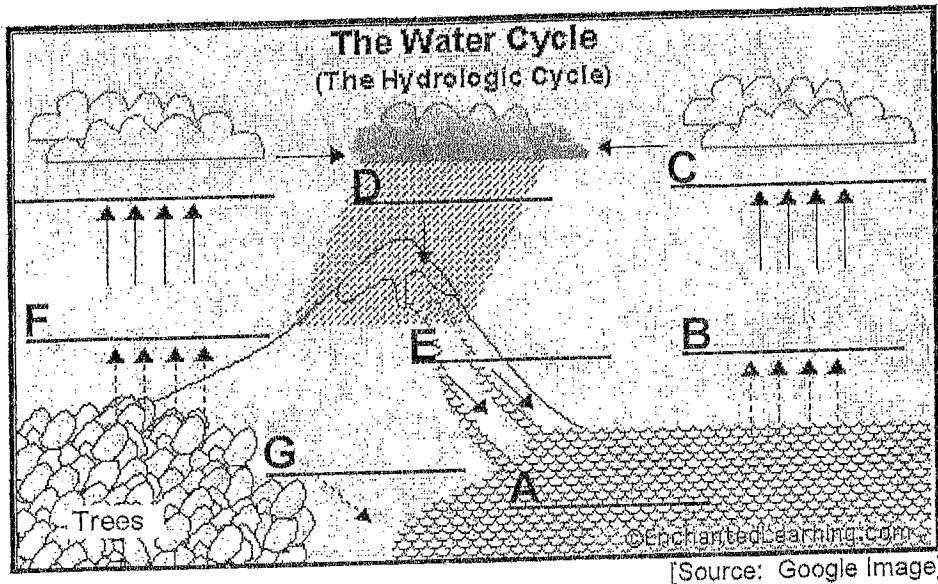
**SECTION A****QUESTION 1**

1.1 Match the statements in Column A with the concepts in Column B. Write the numbers 1.1.1 to 1.1.10 and only the correct letter from Column B.

COLUMN A	COLUMN B
1.1.1 Day to day changes in the condition of the atmosphere.	a) Isotherm
1.1.2 Average weather conditions of over long period of time.	b) Isohyet
1.1.3 When temperature increases with height.	c) Humidity
1.1.4 A combination of smoke and fog.	d) Relative humidity
1.1.5 Amount of radiation reflected from a surface.	e) Weather
1.1.6 Long wave radiation reflected from a surface.	f) Climate
1.1.7 Lines joining places of equal temperature.	g) Temperature inversion
1.1.8 Lines joining places of equal rainfall.	h) Albedo
1.1.9 Amount of water vapour in the air.	i) Smog
1.1.10 Percentage calculation of the amount of water vapour in the air.	j) Solar radiation
	k) Terrestrial radiation
	l) Isobar

10X2=[20]

- 1.2 Refer to the diagram below illustrating the water cycle. Replace the letters A – G in the statements with the correct geographical term. Write down the term next to the letter.

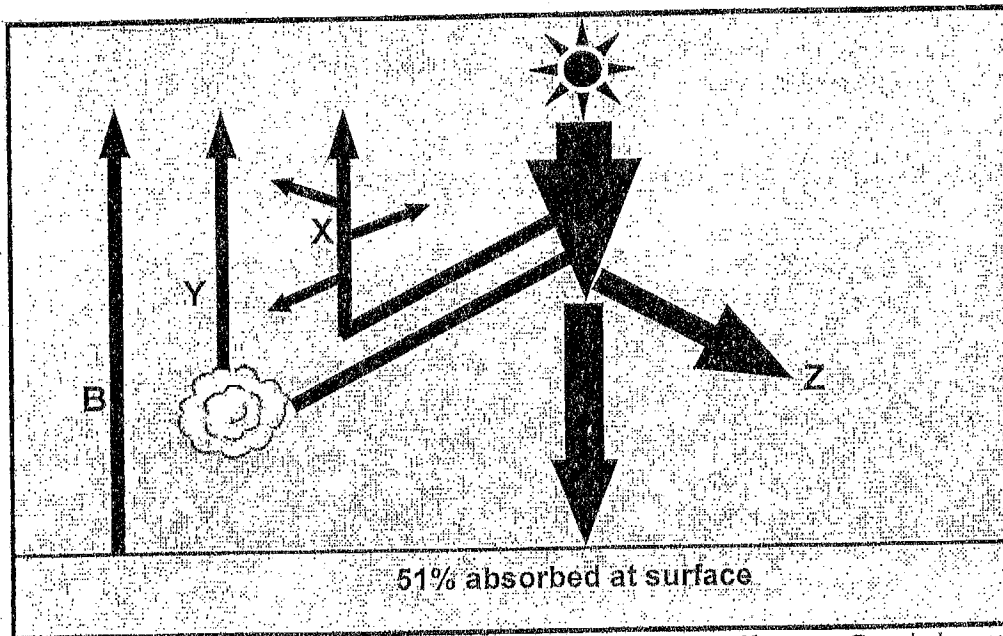


- 1.2.1 A – largest reservoir of water on earth.  
 1.2.2 B – Process whereby water changes to water vapour.  
 1.2.3 C – Process whereby water vapour changes to water.  
 1.2.4 D – Any form of moisture released from atmosphere onto surface.  
 1.2.5 E – Water that flows on the earth's surface after rainfall.  
 1.2.6 F – Moisture released from plants into the atmosphere.  
 1.2.7 G - Process whereby water seeps into the ground.

7X2=[14]

**QUESTION 2**

2.1 Refer to the diagram below and answer the questions set.



[Source: Google Image]

2.1.1 Some of the heat energy given off the sun is lost before it reaches the earth's surface.

- Provide a geographical term for the energy given off by the sun. [2]
- Identify the 3 ways in which energy is lost by naming x, y and z. 3X2=[6]

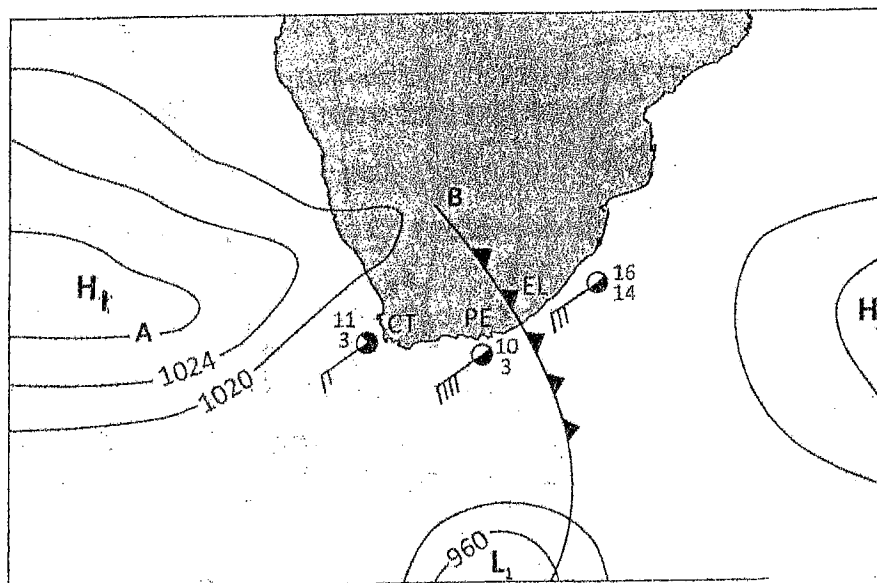
2.2 Name one gas that increases the temperature of the atmosphere. [2]

2.3 Which gas makes up approximately 21% of the atmosphere? [2]

[12]

**QUESTION 3**

Refer to the synoptic weather map below and answer the questions that follow.



- 3.1 Indicate whether this is a summer or a winter map.  
Provide a reason for your answer. [1+2=3]
- 3.2 Refer to front labelled B.
- Name the front labelled B. [2]
  - Describe two weather conditions associated with this type of front. [4]
  - State the general direction of this front. [2]
- 3.3 Name the high pressure cells labelled H1 and H2. [4]
- 3.4 Identify the line represented by A. [2]
- 3.5 State the pressure reading at A. [2]
- 3.6 Study the weather station at Cape Town (CT) and describe the weather under the following headings :
- Air Temperature
  - Dew point temperature
  - Cloud cover
  - Windspeed
  - Wind direction
- 5X2=[10]

**SECTION B – MAPWORK**

**QUESTION 4 – GIS AND ATLAS WORK**

4.1 Define the following terms.

4.1.1 GIS (Geographical information systems). [2]

4.1.2 Remote sensing. [2]

4.2 Match the following spatial objects with line, point and polygon.

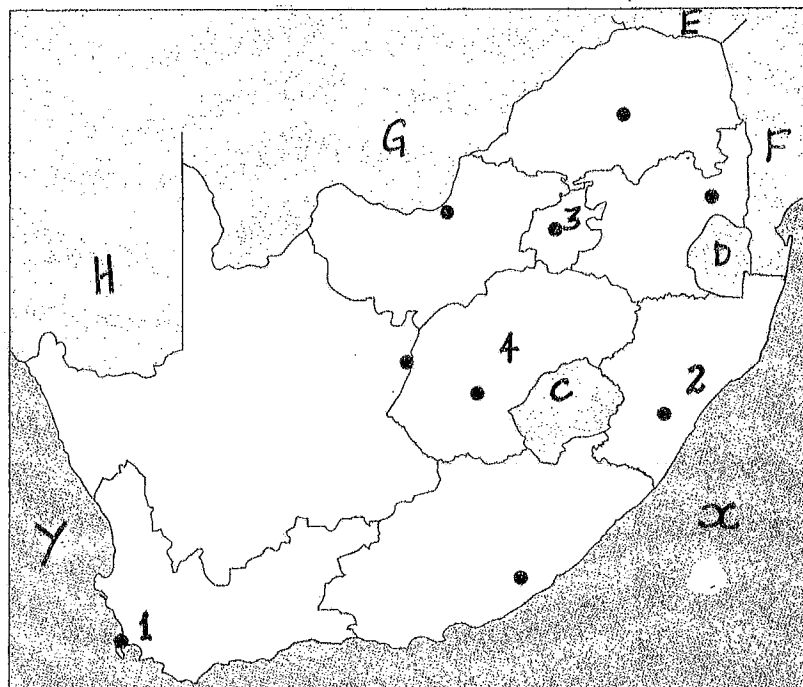
a) School [2]

b) River [2]

c) Dam [2]

4.3 List 3 uses of GIS. 2X3=[6]

4.4 Study the map of South Africa below and answer the questions that follow.



- 4.4.1 Name the provinces labelled 1, 2, 3 and 4. [4]
- 4.4.2 Identify the two oceans labelled X and Y off the coasts of South Africa. [2]
- 4.4.3 South Africa has 6 neighbours (C, D, E, F, G and H).  
Name the neighbours that lie within the borders of South Africa. [2]
- 4.4.4 Which province is the largest in terms of its area (km<sup>2</sup>). [1]

[25]

TOTAL MARKS : [100]

**GREENBURY SECONDARY SCHOOL**



DEPARTMENT OF HSS

H.O.D. MR D RAMASAMI

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08/03/16





Grade 10 - Geography.  
March Cent. Test - Marking Memo + Model answers.  
SECTION A.

Question 1.

- |        |   |         |   |
|--------|---|---------|---|
| 1.1.1. | E | 1.1.6   | K |
| 1.1.2. | F | 1.1.7   | A |
| 1.1.3. | G | 1.1.8   | B |
| 1.1.4. | I | 1.1.9.  | C |
| 1.1.5. | h | 1.1.10. | D |

- 1.2.1 A - Sea/ocean  
B - Evaporation  
C - Condensation  
D - Precipitation  
E - Run-off  
F - Transpiration  
G - Infiltration

~~Question 2~~

- ~~2.1.1 A - Troposphere  
B - Stratosphere  
C - Mesosphere  
D - Thermosphere~~

~~2.1.2. a) Causes:~~

- ~~- Use of refrigerators, aircons etc - CFCs / Deforestation  
- Industries - smoke - pollution / Exhaust fumes~~

~~b) Effects~~

- ~~- Harmful to health - Asthma / heat stroke / Skin Cancer  
- Environment - Crops / Farmland / Ecosystems etc~~

~~c) Measures to reduce impact~~

- ~~- Use ozone friendly products / Limit use of Refrig / Aircons  
- Afforestation / Reduce Industrialization / Use of filters etc~~

### Question 3.

3.1. a) Insolation / Solar Radiation

b)  $\alpha$  - Scattering

$\gamma$  - Reflection

$z$  - Absorption

3.2. CO<sub>2</sub>

3.3. O<sub>2</sub>

### Question 4

4.1. Winter: Temp relatively low  
Cold front over the continent

4.2. a) Cold front

b) Torrential downpour / Thunderstorm activity / Strong winds / hail

c) West to East / Easterly

4.3. H<sub>1</sub> - SAH (South Atlantic High)

H<sub>2</sub> - SIH (South Indian High)

4.4. ISOBAR

4.5. 1028

4.6. a) Air T° - 11°

b) DPT - 3°

c) c/c - 3/4 - Partly cloudy

d) W/speed - 15 knots

e) W/direct - S. Westerly.