KZN DEPARTMENT OF EDUCATION
GREENBURY SECONDARY SCHOOL
FIRST QUARTERLY TEST - 2018
GEOGRAPHY - GRADE 10

EXAMINER	: R. RANGANATHAN	**DATE**	: 20/03/18
MODERATOR	: S. SINGH	**DURATION**	: 1 HOUR
		MAX MARKS	: 75

NAME : _____ **GR/DIV. :** _____

INSTRUCTIONS

1. This paper consists of TWO Sections, A and B.
2. Answer all questions in both Sections.
3. Write neatly and legibly and rule off after each question.
4. Write down your teacher's name in full on the top left hand corner of your answer booklet.
5. Ensure that this paper consists of _3_ printed pages and an Addendum of ___2___ pages.

SECTION A

QUESTION 1

1.1 Match the statements in Column A with the concepts in Column B.
Write down the numbers 1.1.1 to 1.1.8 and next to it, only the correct LETTER from column B.

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

[8X1=8]

1.2 Refer to Addendum Source 1A – diagram on 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 water released from the atmosphere.
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.

[7X1=]

QUESTION 2

2.1 Refer to the diagram showing the layers of the atmosphere – Addendum Source 2A and answer the following questions.

2.1.1 Name the layers A ,B, C and D. [4]

2.1.2 Define the term 'ATMOSPHERE'. [2]

2.1.3 Which layer is responsible for all weather phenomena? [2]

2.1.4 Explain the importance of the ozone layer to man. [2]

2.1.5 Discuss 2 causes of ozone depletion. [2X2=4]

2.1.6 Give one effect of ozone depletion on human beings. [1X2=2]

2.1.7 Suggest 2 measures to reduce the impact of ozone depletion. [2X2=4]

[20]

QUESTION 3

3.1 Refer to the Addendum – Synoptic Weather Map Source 3A and answer the questions below.

3.1.1 Is this a summer or a winter map? Give a reason for your answer. [1+2=3]

3.1.2 Identify the high pressure system labelled A, C and E. [6]

3.1.3 Provide labels for fronts X and Y. [4]

3.1.4 Line labelled B is an isobar. Explain your understanding of an isobar. [2]

3.1.5 Refer to the weather station at Cape Town and describe the weather being experienced around Cape Town. [5X1=5]

[20]

SECTION B – GIS

QUESTION 4

4.1 What does the acronym GIS stand for? [2]

4.2 List 4 components of GIS. [4]

4.3 Name the 3 types of spatial objects in GIS. [3X2=6]

4.4 Suggest 2 ways in which GIS can be a useful too to man. [2X2=4]

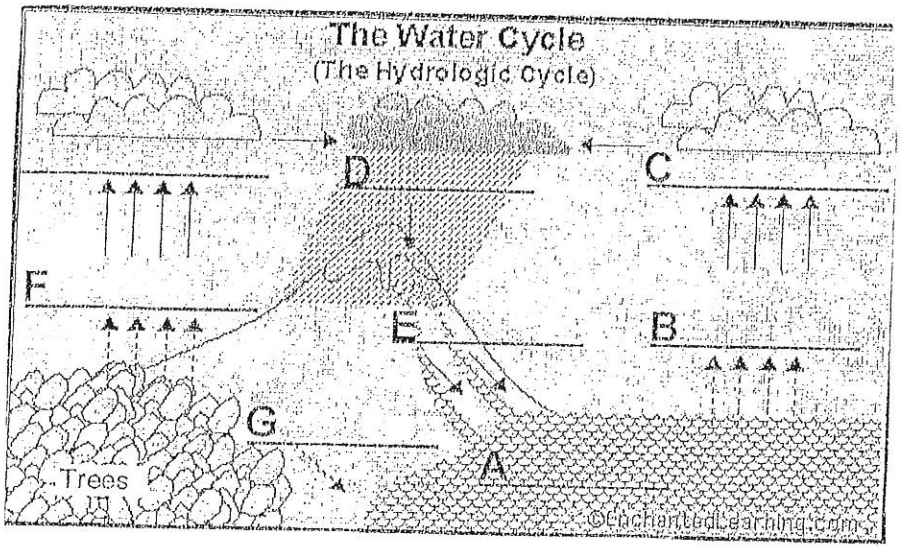
4.5.1 Explain your understanding of a satellite image. [2]

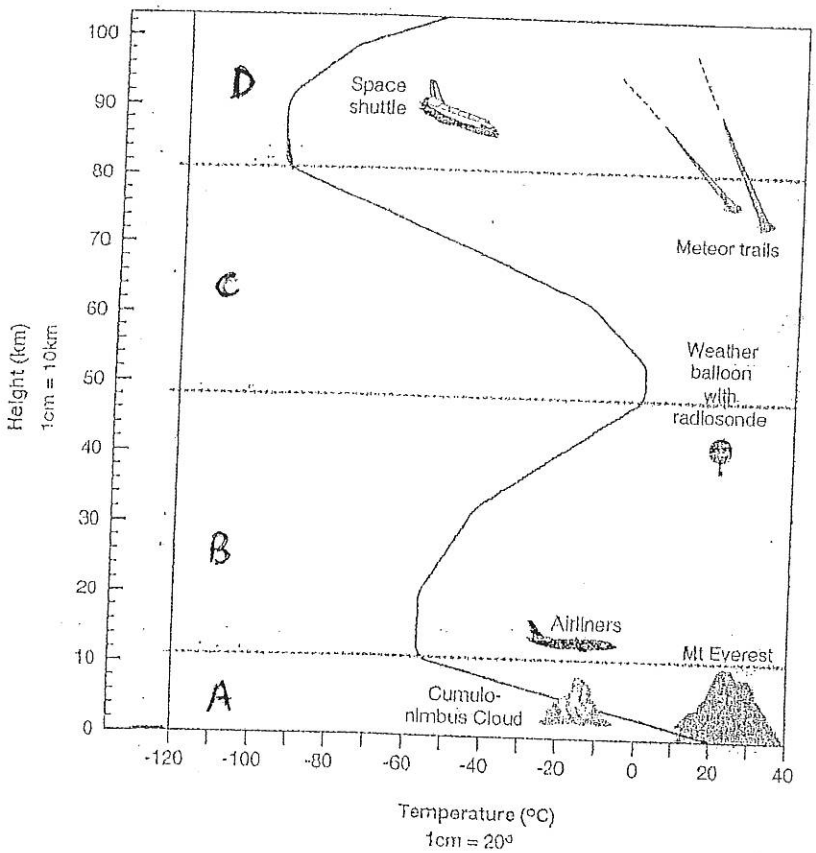
4.5.2 Briefly explain how satellite images can be used in meteorology. [2]

[20]

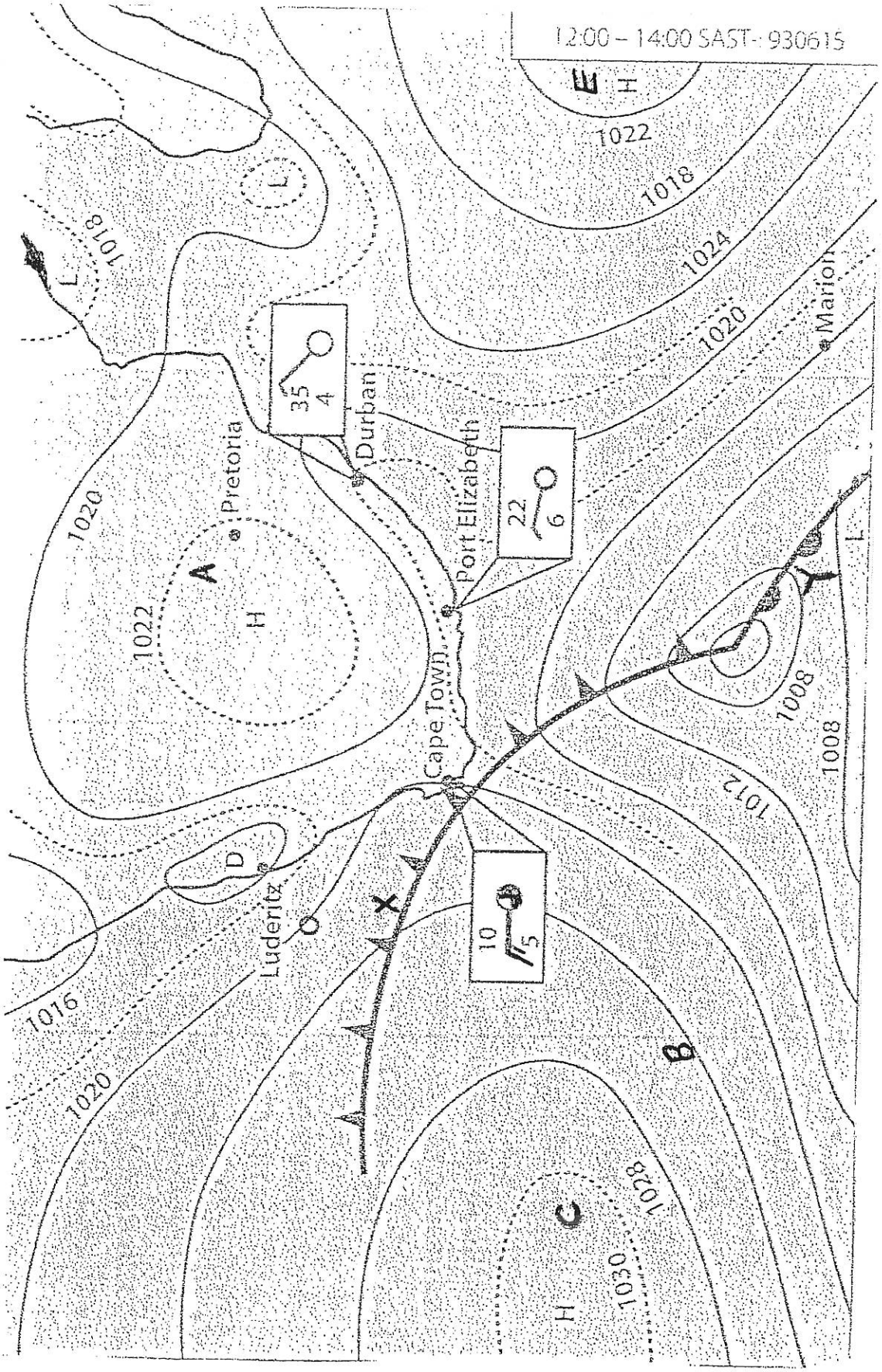
TOTAL : [75]

PTO P4


The Water Cycle
(The Hydrologic Cycle)
D
C
F
E
B
G
A
Trees
©EnchantedLearning.com


D
C
B
A
Space shuttle
Meteor trails
Weather balloon with radiosonde
Airliners
Mt Everest
Cumulo-nimbus Cloud
Height (km)
1cm = 10km
Temperature (°C)
1cm = 20°
100
90
80
70
60
50
40
30
20
10
0
-120
-100
-80
-60
-40
-20
0
20
40

PTO.. P5



R Ramasami
HOD - HSS
D. RAMASAMI
15/03/18

Grade 10 Geography.
March Control Test - 2018.
Marking Memo + Model Answer.

1.1.	F	✓	1.5	E	✓
1.2.	A	✓	1.6	D	✓
1.3.	B	✓	1.7.	I	✓
1.4.	C	✓	1.8.	G.	✓

8x1 = (8)

1.2.1. A - Sea/ocean or Water body ✓
1.2.2. B - Exaporation ✓
1.2.3. C - Condensation ✓
1.2.4 D - Precipitation / Rain ✓
1.2.5 E - Run-off ✓
12.6 F - Transpiration ✓
1.2.7 G - Infiltration ✓

7x1 = (7)

2.1.1. A - Troposphere ✓
B - Stratosphere ✓
C - Mesosphere ✓
D - Thermosphere ✓

2.1.2. Gaseous layer that surrounds the earth. //
2.1.3 Troposphere //
2.1.4. Protects us from bombardment of the dangerous UV Rays //
2.1.5. - Use of refridgerators + Aircons / Aerosol Sprays //
- Use of CFCS / Deforestation //
- Industries - pollutants eg smoke / Exhaust fumes. //
} any 2.

2.1.6. - Harmful to health → Asthma / heat stroke / Skin Cancer } any 1
- Impact negatively on farmland - Damage to crops // 2x1
Hence no food / Starvation / malnutrition → Food Insecurity.

2.1.7 - Use ozone friendly products. //
- Afforestation / Reduce Industrialization → Ind. Decentralization
- Limit use of Refrigerators / Aircons //
- Use filters → exhaust fumes
- Lift Clubs etc.

} any 2 2×2 = (4)

3.1.1. Winter - Map. /
- Date - 6th Month - June - Winter in S. Hemisphere 1+2.
- Continent dominated by H.P. Cell
- Cold front - occupies northerly position / close to continent
- Temperatures are relatively low.
- Anticyclones SAH + SIH occupy northerly positions.

3.1.2. A - Kalahari High //
C - S.A.H //
E - S.I.H. //

3.1.3. X - Cold front //
Y - Warm front //

3.1.4. An Isobar is a line on a map that joins places of equal pressure. //

3.1.5. Air Temp - 10° /
D.P.T - 5° /
C/Cover - 3/4 or partly cloudy.
W/Direction - Westerly /
W/Speed - 15 knots /

5×1 = (5)

Question 4 - GIS

4.1. Geographical Information Systems. //

4.2. Hardware /
Software /
User /
Data /

4×1 =(4).

4.3 Line, point and polygon //

4.4. Crime prevention - Crime Patterns - allocate officers in hotspots.
Meteorology - track path of Cyclone / hurricanes } any 2
Retail industry. - eg Pick n Pay - Before and after sales - Map change
See where advert most effective 2×2 =(4).

4.5.1.
- An image / picture taken from outerspace of earth.
eg remote sensing //

4.5.2. Satellite images can be used to determine Weather phenomena. It can be used to track the path of a cyclone / Hurricane //.

TOTAL = [75]