KZN DEPARTMENT OF EDUCATION GREENBURY SECONDARY SCHOOL JUNE EXAMINATION - 2016 GEOGRAPHY GRADE 10

EXAMINER

: R. RANGANATHAN

DATE : 07/06/16

MODERATOR

: D. RAMASAMI

DURATION: 2 HOURS

S. SINGH

MAX MARKS: 140

INSTRUCTIONS

- 1. THIS PAPER CONSISTS OF 2 QUESTIONS AND <u>5</u> PAGES + A SEPARATE ADDENDUM.
- 2. ANSWER ALL QUESTIONS.
- 3. NUMBER THE QUESTIONS AS PER QUESTION PAPER AND RULE OFF AFTER EACH QUESTION.
- 4. WRITE NEATLY AND LEGIBLY.

QUESTION 1 – Atmosphere and Geomorphology

1.1 Match the statements in Column A with the terms in Column B. Write down the numbers 1.1.1 to 1.1.5 and next to each, the letter of the correct answer.

	COLUMN A	COLUMN B
1.1.1	Gaseous layer that surrounds the earth.	a) Permanent
1.1.2	Gases that do not change in composition.	b) Atmosphere
1.1.3	Incoming solar radiation.	c) Albedo
1.1.4	Amount of radiation reflected off earth.	d) Insolation
1.1.5	Any form of water that falls from the	e) Precipitation
	atmosphere.	f) Variable

5X1=[5]

1.2 Refer to Source 1A – structure of the Atmosphere and answer the following questions.

1.2.1	Name layers 1, 2, 3 and 4 as they appear from earth.	[4]
1.2,2	In which 2 layers do temperatures increase with height.	[2]
1.2.3	What is the term used to describe change in temperature with the	ne
	change in altitude?	[2]
1.2.4	The stratosphere contains the ozone layer. Explain the importa	nce
	of this ozone gas that is in the ozone layer.	[2]
1.2.5	With regards to ozone depletion, write a short paragraph for each	ch
	of the following headings.	
	a) Causes of ozone depletion. (2 points)	2X2=[4]
	b) Effects of ozone depletion. (2 points)	2X2=[4]
	c) Measures to reduce ozone depletion. (2 points)	2X2=[4]

1.3	With	the aid of a simple sketch, explain the Hydrological (Water) Cyc	ele. [4]
1.4	State	e whether the following is true or false.	
·	1.4.1	The inner core is extremely hot and solid.	
	1.4.2	Sedimentary rock was the first type of rock formed.	
	1.4.3	The mantle is semi-molten.	
	1.4.4	The lithosphere is hot and plastic in nature.	
	1.4.5	Continental crust is mostly formed of granite.	
			5X1=[5]
1.5	Refe	r to Source 1B – (Igneous intrusions) and answer the following q	uestions.
	1.5.1	Provide labels for A, B, C, D, E and F.	[6]
	1.5.2	Explain your understanding of igneous intrusions	[2]
	1.5.3	Define the term volcanism.	[2]
	1.5.4	Name 3 types of volcanic cones that you have studied.	[3]
			[13]
1.6	Refer	to the diagram (Source 1C) – structure of an earthquake and ar	oswar tha
		ving questions.	13WCI LIIC
		Provide labels for A, B and C.	[3]
	1.6.2		[2]
	1.6.3	Differentiate between A and B in terms of characteristics.	[4]
	1.6.4		k *J
		Give a reason for your answer.	2+2=[4]
	1.6.5	Name the instrument used to measure the intensity of an	
		earthquake.	[2]
	1.6.6	Explain 3 measures that you would take to reduce the impact	L 44
		of an earthquake.	3X2=[6]
			[21]

TOTAL - QUESTION 1 = [70]

QUESTION 2

2.1 Choose the correct term from the list below that matches the statements that follow.

Solar radiation	cumulonimbus	crystalisation	sublimation
Terrestrial radiation	stratus clouds	dew point te	mp

- 2.1.1 Heat given off by the earth.
- 2.1.2 Temperature at which condensation takes place.
- 2.1.3 Layered clouds.
- 2.1.4 Associated with heavy rain, lightening ad thunder.
- 2.1.5 Water changes directly from gas to ice.

5X1 = [5]

- 2.2 Refer to Source 2A Table showing average daily temperatures and answer the following questions.
 - 2.2.1 Which place had higher daily temperature, Durban or Cape

 Town? State 2 factors for your reason. 1+2+2=[5]
 - 2.2.2 The temperature range for Johannesburg is much higher than that of Durban.
 - a) Explain your understanding of temperature range.

b) What factor is responsible for this difference in temperature range?

c) Briefly explain the factor mentioned (answer 2.2.2 b). 2X2=[4]

- 2.3 Refer to the synoptic weather map (Source 2B) and answer the following questions.
 - 2.3.1 Is this a summer or a winter map? Provide 2 reasons for your answer. 1+2X2=[5]
 - 2.3.2 Identify the following.

a) Fronts labelled X and Y.

[2]

[2]

[2]

b) High pressure cells labelled A, C and E.

[6]

2.3.3 Briefly describe 2 weather conditions that Cape Town is likely to experience.

2X2=[4]

P.T.O. ...

2.4 Match the statements in Column A with the terms in Column B. Write down the numbers 2.4.1 - 2.4.5 and next to each, the letter of the correct answer.

. , , , , , , , , , , , , , , , , , , ,	COLUMN A		COLUMN B
2.4.1	Area where new crust is formed.	a)	Destructive boundary
2.4.2	When two plates move towards each	b)	Divergent boundary
	other.	c)	Transform boundary
2.4.3	Where two plates collide and land is	d)	Constructive
	destroyed.		boundary
2.4.4	When two plates move away from each	e)	Convergent boundary
	other.	f)	Subduction zone
2.4.5	When two plates move side-wards		
·	passed each other.		

5X1=[5]

2.5 Refer to Source 2C and answer the following questions.

	3 1	
2.5.1	Define the term folding.	[2]
2.5.2	Identify the types of folds labelled A, B, C, and D.	[4]
2.5.3	What type of rock does folding commonly occur in?	[2]
2.5.4	Give an example of a South African fold mountain.	[2]

- 2.6 Refer to (Source 2D) Case Study Volcanic eruption (ICELAND) and answer the following questions.
 - 2.6.1 Define the following terms:

	a) Glacier	[2]
	b) Lava	[2]
2.6.2	Differentiate between active and dormant volcano.	[4]
2.6.3	Briefly describe two negative effects of this volcanic eruption	
	on the people of ICELAND.	2X2=[4]
2.6.4	What did the authorities do reduce the impact of this eruption?	[2]
2.6.5	Suggest three positive effects of volcanic eruptions in general.	3X2=[6]

TOTAL - QUESTION 2 = [70]

GREENBURY SECONDARY SCHOOL

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GEOGRAPHY PAPER 1 GRADE 10

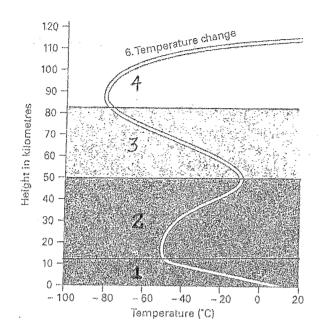
ADDENDUM

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JUNE EXAM 2016

Source 1A

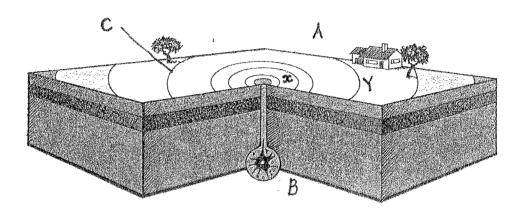


A Source 1.8

A

B

Source 10



Source 2A

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(___)

City/town	Average daily temp = January	Average dally temp - July
Durban	High 28° C	High 23° C
واسترست والمستودة والمساوحة والمساوح	Low 21° C	Low 11° C
Johannesburg	High 26° C	High 17° C
والمراوعة	Low 15° C	Low 4° C
Cape Town	High 26° C	High 18° C
	Low 16° C	Low 7° C
Polokwane	High 28° C	High 20° C
	Low 17° C	Low 4° C

Source 2B

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1022

A Pretoria

Luderitz

Cape Town

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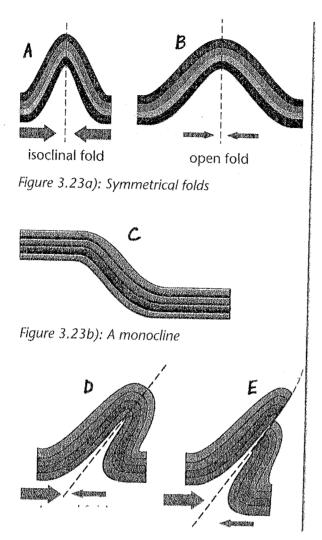
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Case study Source 2D 2010 eruptions of Eyjafjallajökull (Iceland)

An Icelandic volcano, dormant for 200 years, has erupted, ripping a 1 km-long fissure in a field of ice.

The volcano near Eyjafjallajoekull glacier began to erupt just after midnight, sending lava a hundred metres high. Icelandic airspace has been closed, flights diverted and roads closed. The eruption was about 120 km (75 miles) east of the capital, Reykjavik. About 500 people were moved from the area. The area is sparsely populated, but the knock-on effects from the eruption have been considerable. A state of emergency is in force in southern Iceland and transport connections have been severely disrupted, including the main east-west road. Ash has already begun to fall in Fljotshlid and people in the surrounding area have reported seeing bright lights emanating from the glacier.

Three Icelandic air flights, bound for Reykjavik from the United States, were ordered to return to Boston. Domestic flights were suspended indefinitely, but some international flights were scheduled to depart on Sunday. There had initially been fears that the volcano could cause flooding, as it causes ice to melt on the glacier above it, but that scenario appears to have been avoided.

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	- Use of fertilisers/Motor car fumes/Deforestation/Acroso/sprays
	b) Effects
	- Skin Cancer / Cataracts
	- Reproductive cycle of phytoplankton is affected
	c) Measures to reduce Ozone depletion
-	- Ban the we of acroso/s
bion de la company de la compa	- use ozone friendly budget
1 277.7	- Protocols eg Montreal protocolon where CFCS phased out
	- Use of filter / Enviro mendy buduets / organic touch;
	- Reduce midualisation - Kyo70 Partocol.
	- Modern motor cars - faul efficient
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