education

Department:
Education
PROVINCE OF KWAZULU-NATAL

UGU-DISTRICT
SIBONGIMFUNDO HIGH SCHOOL

NATIONAL
SENIOR CERTIFICATE

GRADE 11

GEOGRAPHY MARCH TEST

EXAMINER: MR L.S NKOMO
MARKS: 60
TIME: 60 Minutes

INSTRUCTIONS AND INFORMATION

1. This question paper consists of ONE question.
2. ATMOSPHERE:
3. Answer ALL questions.
4. All diagrams are included in the QUESTION PAPER.
5. Start EACH sub-question after skipping one line.
6. Leave a line between subsections of questions answered.
7. Number answers correctly according to the numbering system used in this question paper.
8. Write neatly and legibly.

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QUESTION 1: ATMOSPHERE

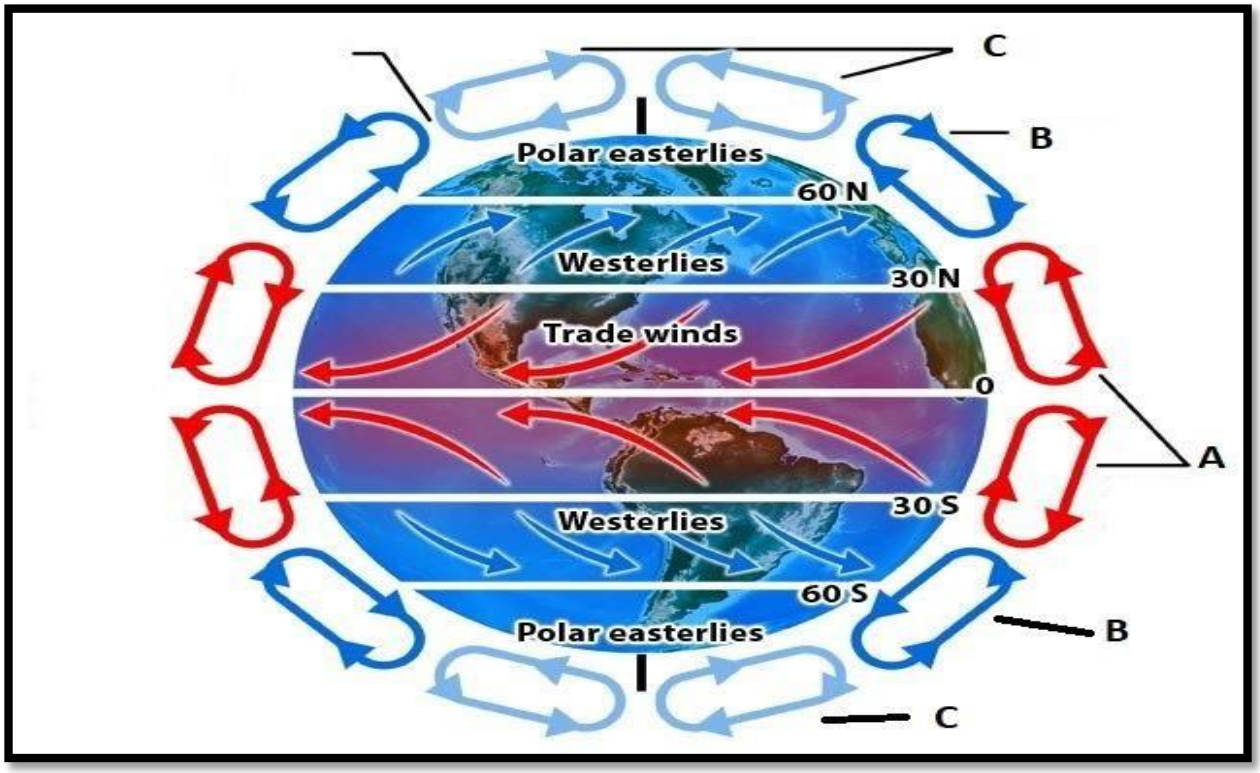
1.1 Choose ONE term for each of the following descriptions by choosing a term from the list below. Write only the term next to the question number e.g1.1.5 Isobars

Convergence; Global air circulation; Isotherms; Front; Pressure gradient force; Coriolis force; Revolution

1.1.1 Lines drawn on a weather map that join places of equal pressure (1x1) (1
1.1.2 Large scale movement of air in the atmosphere (1x1) (1
1.1.3 The force that deflects wind from its intended path into another path (1x1) (1
1.1.4 The difference in pressure causing air to move from high pressure area towards low pressure area (1x1) (1
1.1.5 The term used for the movement of the earth around the sun (1x1) (1
1.1.6 Process where two air masses meet in a low-pressure cell (1x1) (1
1.1.7 Zone where two air masses meet (1x1) (1

[7]

1.2 Refer to the tri – cellular circulation model labelled <u>A, B and C</u>. Match each statement below with <u>A, B and C</u>

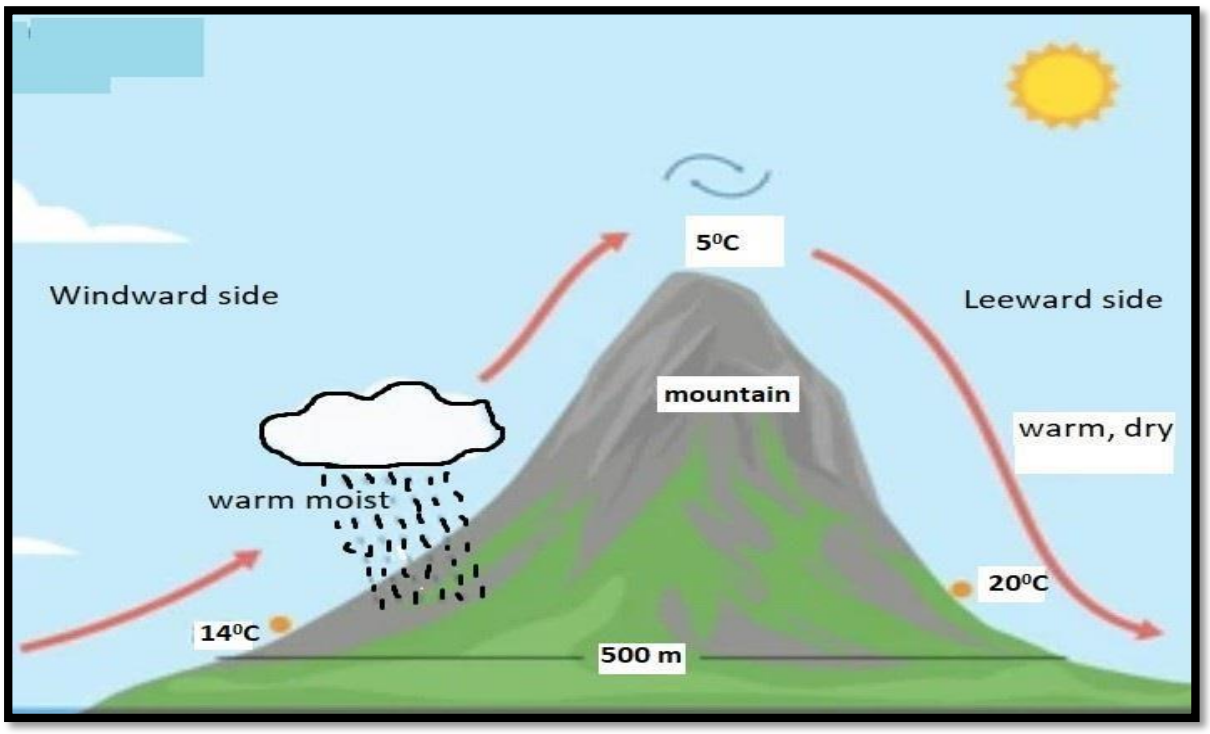


[Source:http:www.google.com/gac]

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1.2.1 The cell originates between 0° to 30°north and south of the equator (1)
1.2.2 The planetary winds of this cell are polar easterlies. (1)
1.2.3 The tropical easterlies are the surface wind of the cell (1)
1.2.4 Condensation takes place and cumulonimbus clouds are formed with convectional thunderstorm. (1)
1.2.5 The cell is between 30° to 60° north and south of the equator. (1)
1.2.6 The polar front at 50° to 60° of the equator winds converges at this cell. (1)
1.2.7 The air descends at 30° north and south of the equator as it is warmed adiabatically no condensation warm dry weather occurs (1)
1.2.8 This is a heat generated cell circulation. (1)
(8x1) **(8)**

1.3 Refer to the sketch below showing Fohn winds



[Source: Examiner's own sketch]

1.3.1 Where does Fohn winds originate? (1x1) (1)

1.3.2 Give the name given to Fohn winds in North America. (1x1) (1)

1.3.3 What is the local name of Fohn winds in South Africa? (1x1) (1)

1.3.4 Give TWO environmental hazards associated with Fohn winds (2x1) (2)

1.3.5 Suggest TWO reasons for the wet weather condition on the windward side of the mountain. (2x2) (4)

1.3.6 Explain how the dry adiabatic warming air will influence the weather on the leeward side of the mountain. (3x2) (6) (15)

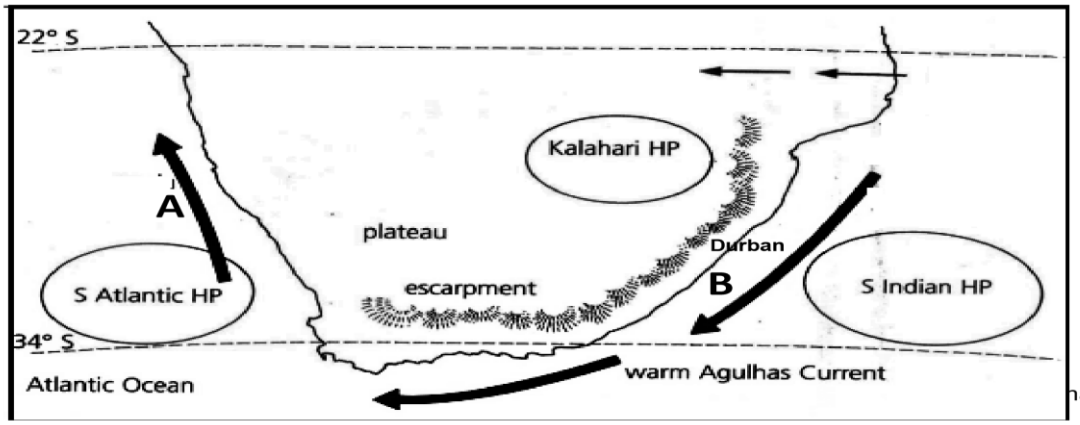
1. 4 Refer to the info graphic on Africa's weather and climate.

TOWN	MAXIMUM TEMP (°C)	MINIMUM TEMP (°C)
Pretoria	24	4
Johannesburg	21	3
Nelspruit/Mbombela	30	9
Polokwane	25	5
Mafikeng	24	6
Bloemfontein	21	3
Kimberley	21	6
Cape Town	19	12
East London	25	13
Durban	25	10

Ocean currents influence the weather of the coastal areas.

Due to evaporation from the oceans, the winds blowing from the sea to the land carry moisture, (Onshore winds) to coastal areas.

Any moisture in the air condenses to form either mist or fog



1.4.1 Define onshore wind (1 x 2) (2)

1.4.2 Use the information from the infographic and determine which city has the smallest temperature range? (1 x 1) (1)

1.4.3 Identify ocean currents **A** and **B**, which influence the climate of the South Africa. (2 x 1) (2)

1.4.4 Explain why ocean current A is responsible for cold and dry west coastal conditions. (1 x 2)

1.4.5 In a paragraph of approximately EIGHT lines, discuss the influence of ocean current **B** (identified in QUESTION 1.4.3), on the temperature and rainfall of Durban. (4 x 2) (8) [15]

1.5 Refer to the sketch on monsoon winds and LA Nina weather events in South Africa



[Source:https:weathersa/disaster-2022]

1.5.1	Identify the season illustrated in sketch **A**	(1x1)	(1)
1.5.2	Name the common climatological weather importance shown by sketch **A** and **B**	(1x2)	(2)
1.5.3	Describe the weather changes that South Africa experiences during LA Nina in sketch **B**	(1x2)	(2)
1.5.4	Explain the role played by the ascending (rising) air in the development of summer monsoon and LA Nina weather events	(1x2)	(2)
1.5.5	In a paragraph of approximately EIGHT lines, evaluate how sketch A and B can have both positive and negative effects /influence on people activities.	(4x2)	(8)
			(15**)**

TOTAL 60 MARKS