

KZN DEPARTMENT OF EDUCATION
GREENBURY SECONDARY SCHOOL
MARCH CONTROLLED TEST – 2015
GEOGRAPHY

EXAMINER: S.SINGH
MODERATOR: D. RAMASAMI
DATE: 24/03/2015

GRADE: 11
MARKS: 100
DURATION: 1.5 HOURS

NAME: _____

GRADE/DIV: _____

INSTRUCTIONS:

1. This paper consists of 5 pages which has 2 sections: Section A (Theory) and Section B (Mapwork).
2. Answer all questions.
3. Write neatly and legibly.
4. There is a separate addendum consisting of 3 pages to this paper which you need to make reference to when answering questions.

SECTION A

QUESTION 1

1.1 Give the correct term for the statements below.

1.1.1 Lack of rainfall over a prolonged period of time.

1.1.2 Warm dry winds that blow across Central Europe.

1.1.3 Equal length of day and night.

1.1.4 Climatic region of Cape Town.

1.1.5 Heated air travelling upwards.

1.1.6 Loss of healthy, fertile soils in low rainfall regions.

1.1.7 Midday sun directly overhead at one of the tropics.

1.1.8 Movement of the earth around the sun.

1.1.9 Lines on a map joining places of equal rainfall.

1.1.1.0 Force exerted on the earth's surface by air due to gravity. (10)

QUESTION 2

2.1 Study figure 1 in the addendum and answer the following questions.

2.1.1 What is the name of the line represented by the letter X? 1

2.1.2 Letter A represents the pressure gradient force. Give a reason to support this statement. 2

2.1.3 Which letter represents the Coriolis force? Give a reason for your answer. 2

2.1.4 Name the resultant wind labelled C. 1

2.1.5 Briefly describe how this wind (Answer to 2.1.4) is formed. 4

(10)

2.2 Refer to figure 2 in the addendum and answer the questions.

2.2.1 Supply the correct letter from the diagram for the following

2.2.1.1 Polar Cell	1
2.2.1.2 Ferrel Cell	1
2.2.1.3 Hadley Cell	1
2.2.1.4 Equatorial low pressure	1
2.2.1.5 Subtropical high pressure	1
2.2.1.6 Polar high pressure	1
	(6)

QUESTION 3

3.1 Study the diagram figure 3 in the addendum illustrating a monsoon and answer the questions.

3.1.1 Identify the type of monsoon shown in the diagram. Give a reason to support your answer.	4
3.1.2 Briefly explain the formation of a winter monsoon (4 points).	8
3.1.3 Give the significance of the summer monsoons to the people of India. (2 Answers).	4

QUESTION 4

4.1 Study the synoptic weather map figure 4 in the addendum and answer the questions.

4.1.1 State the season indicated on the map. Give a reason for your answer.	3
4.1.2 What is the pressure reading at X.	1
4.1.3 Identify the following:	
4.1.3.1 Pressure cell B	
4.1.3.2 Pressure cell C	
4.1.3.3 Line labelled E	3
4.1.4 If you were a weather forecaster, how would you describe the weather being experienced at Port Elizabeth. (5 x 2) (10)	
4.1.5 State 2 weather conditions that Cape town will experience as a result of front labelled D.	4

QUESTION 5

5.1 Answer the following questions on El Nino and La Nina

5.1.1 Define the following terms

5.1.1.1 El Nino

2

5.1.1.2 La Nina

2

5.1.2 During which season does El Nino affect South Africa?

2

5.1.3 Discuss the economic effects of La Nina on the lives of fishermen in Peru?
(2 Answers)

4

(10)

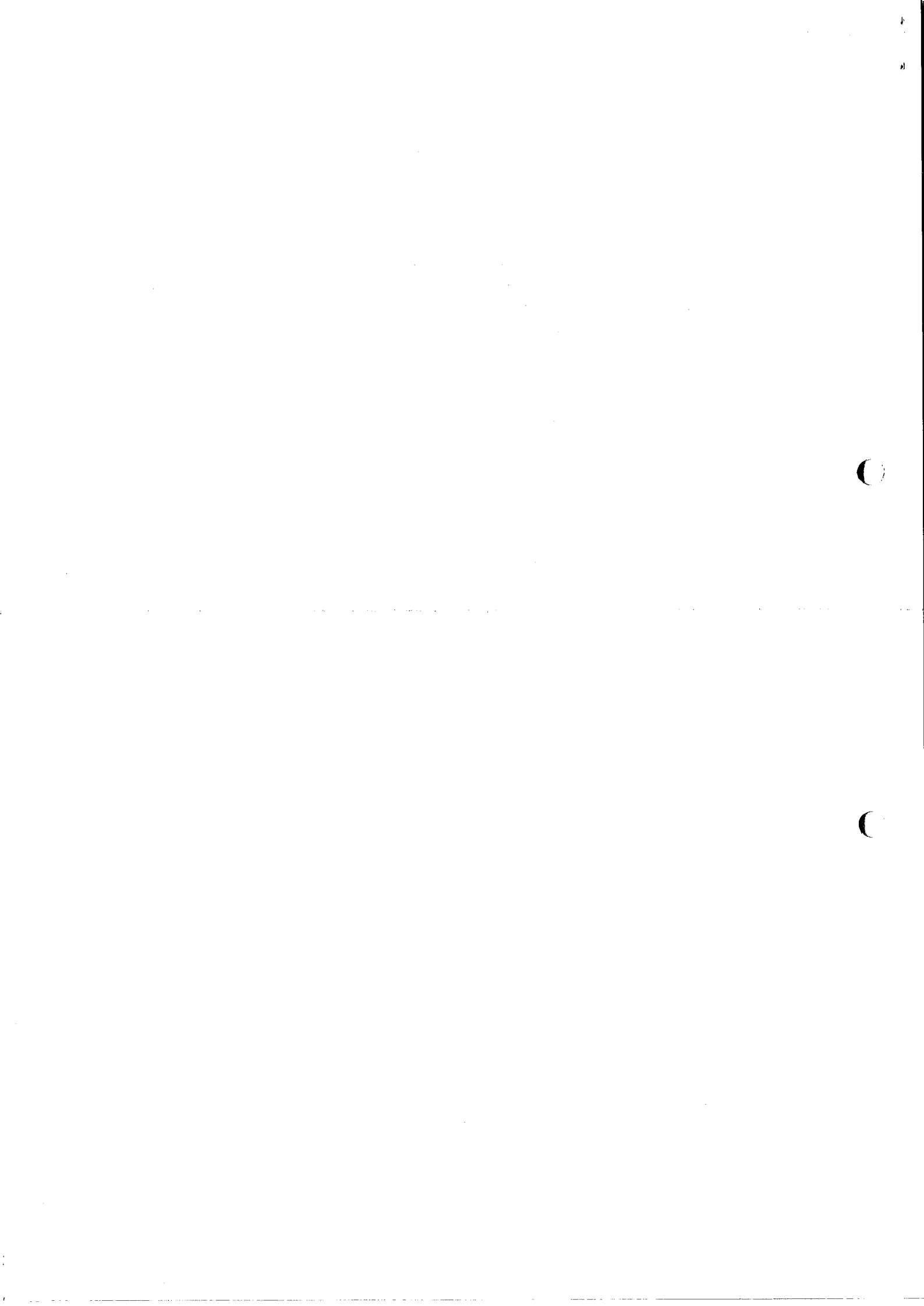
TOTAL SECTION A = 75 MARKS

SECTION B – MAPWORK

QUESTION 6

- 6.1 Refer to the topographic map extract of Steynsburg figure 5 on page 3 in the addendum and answer the questions.
- 6.1.1 Name the type of scale that appears on the map. 1
- 6.1.2 State 2 ways how height is shown on the map in block C4. 2
- 6.1.3 Identify the features on the map labelled:
- 6.1.3.1 A (A2) 1
- 6.1.3.2 B (C2) 1
- 6.1.4 Provide evidence from the map that indicates that the terrain on the eastern side of the map is steeper than the western side. 2
- 6.1.5 Of what significance is the Sewefontein dam to the residents of Steynsburg. 4
- 6.2 Study the sketches showing the position of a camera taking aerial photographs. in figure 6 on page 2 in the addendum.
- 6.2.1 Identify the type of aerial photograph being taken at A and at B. 2
- 6.2.2 Explain the difference between the type of photograph at A and B. 4
- 6.3 Answer the following questions on GIS
- 6.3.1 Explain your understanding of GIS. 2
- 6.3.2 Name any 2 components of GIS. 2
- 6.3.3 Explain 2 ways how GIS can be useful to climatology. 4
- (25)

GRAND TOTAL 100



**GEOGRAPHY
ADDENDUM**

GRADE 11

MARCH 2015

THIS ADDENDUM CONSISTS OF 3 PAGES

FIGURE 1

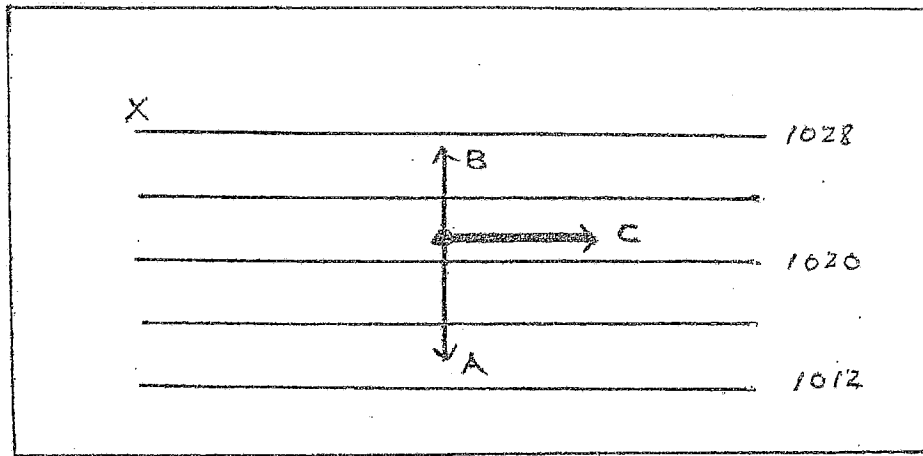


FIGURE 2

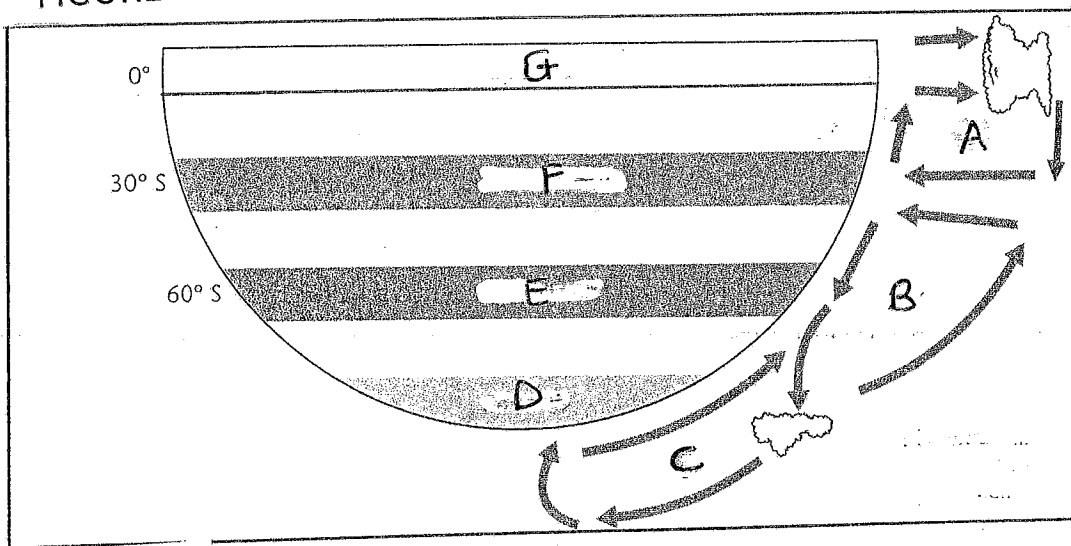


FIGURE 3

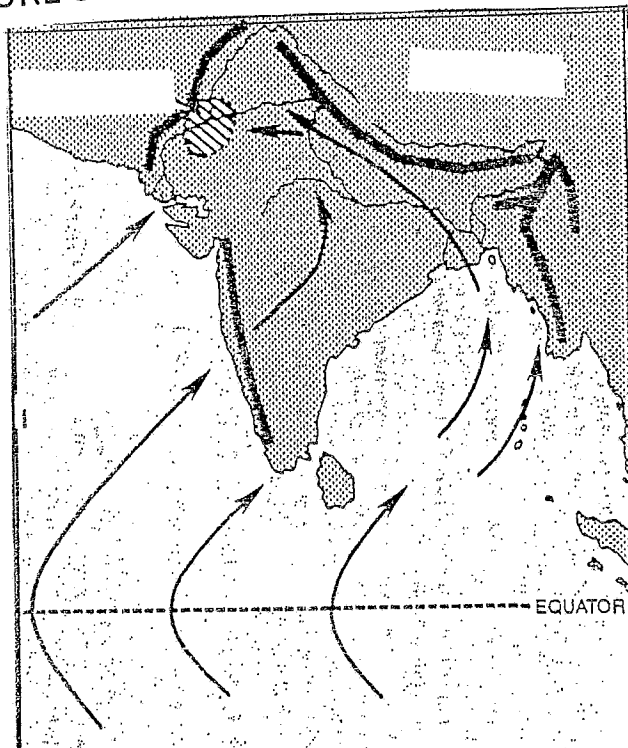


FIGURE 4

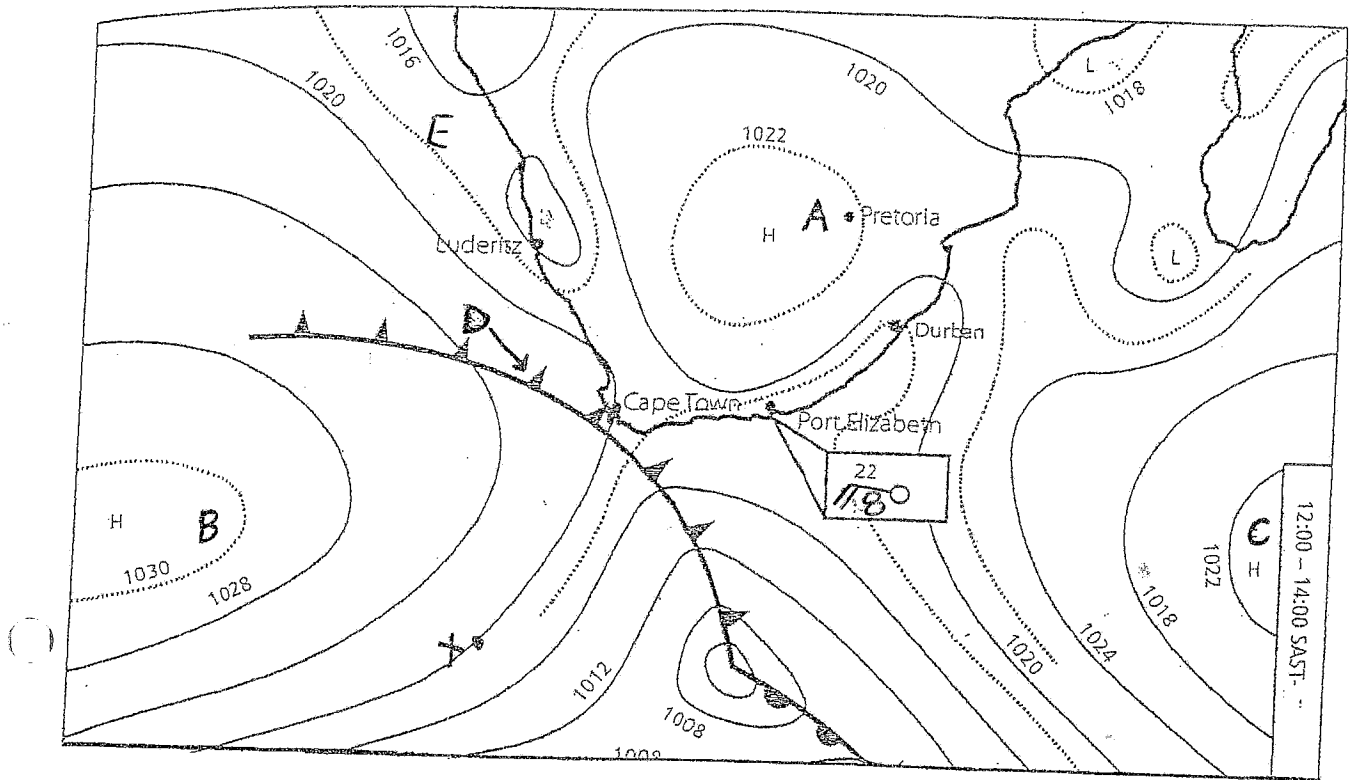


FIGURE 5 - P3

FIGURE 6

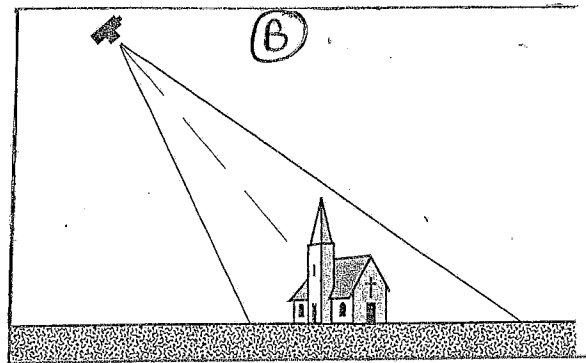
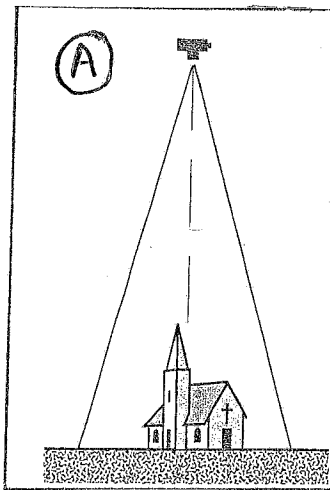
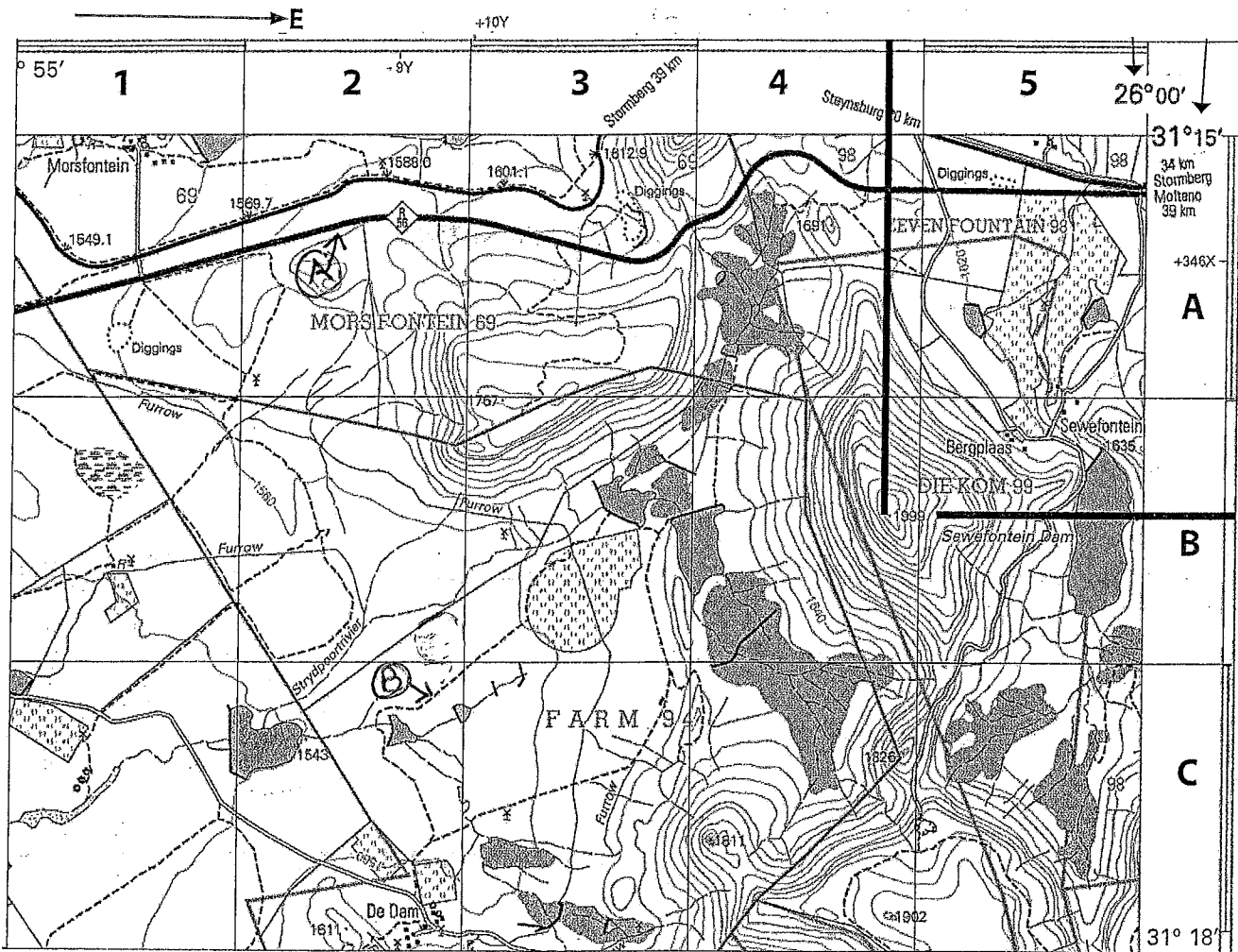


FIGURE 5

3125BD STEYNSBURG

1:50 000

SOUTH AFRICA
SUID-AFRIKA



REFERENCE

VERKLARING

International Boundary and Beacon.....	
Provincial Boundary.....	
Protected Area.....	
Perennial River.....	
Perennial Water.....	
Non-perennial River.....	
Non-Perennial Water.....	
Dry Water Course.....	
Dry Pan.....	
Marsh and Vlei.....	
Pipeline (above ground).....	
Water Tower; Reservoir; Water Point.....	
Coastal Rocks.....	
Prominent Rock Outcrop.....	
Erosion; Sand.....	
Woodland.....	
Cultivated Land.....	
Orchard or Vineyard.....	
Recreation Ground.....	
Row of Trees.....	

National Freeway; National Route.....	
Arterial Route.....	
Main Road.....	
Secondary Road; Bench Mark.....	
Other Road; Bridge.....	
Track and Hiking Trail.....	
Railway; Station or Siding.....	
Other Railway; Tunnel.....	
Embankment; Cutting.....	
Power Line.....	
Built-up Area (High, Low Density).....	
Buildings; Ruin.....	
Post Office; Police Station; Stores.....	
Place of Worship; School; Hotel.....	
Fence; Wall.....	
Windpump; Monument.....	
Communication Tower.....	
Mine Dump; Excavation.....	
Trigonometrical Station; Marine Beacon.....	
Lighthouse and Marine Light.....	
Cemetery; Grave.....	

GREENBURY SECONDARY SCHOOL

DEPARTMENT OF HSS

H.O.D. MR D RAMASAMI



D. Ramasami
18/03/15

Marking Memo

Grade 11 - Geog

March 2015

Question 1

1.1.1. Drought

1.1.2. Föhn Winds

1.1.3. Equinox

1.1.4. Mediterranean

1.1.5. Convection

1.1.6. Desertification

1.1.7. Solstice

1.1.8. Revolution

1.1.9. Isohyet

1.1.10. Atmospheric Pressure

Question 2

2.1.1. Isobar

2.1.2. Movement from HP to LP at 90° to isobars

2.1.3. B - acts at 90° to path of wind.

2.1.4. Geostrophic Wind / Flow from HP to LP due to PGF.

2.1.5. Air moves from HP to LP due to PGF. When PGF and CF are balanced, wind blows parallel to the isobars = GW

2.2.1.1. C

2.2.1.2. B

2.2.1.3. A

2.2.1.4. G

2.2.1.5. F

2.2.1.6. D

Question 3

3.1.1. Summer Monsoon - Wind blowing from ocean (HP) to land (LP).

3.1.2. Land is cool = HP.

Ocean is warm = LP

Get dry winds blow from land to ocean. Diff. state - no rainfall \rightarrow NE winds

3.1.3. Bring rainfall - welcome by farmers.

Can cause flooding - destruction / loss of lives etc.

Question 4

4.1.1. Winter - HP on continent / cold front on land / SAH + SH to NE south / Clear skies

4.1.2. 1020 mb

4.1.3.1. South Atlantic High

4.1.3.2. South Indian High

4.1.3.3. Sub - isobar

4.1.4. Air temp - 22°

Dew point temp - 8°

Cloud cover - clear skies

Wind speed - 20 knots

Wind direction - NW

4.1.5. Low temp

Heavy rainfall

Increase in wind speed

Change in wind direction.

Question 5

- 5.1.1. Warmer than normal sea surface temp. (hot + dry)
- 5.1.2. Colder than normal sea surface temp. (cold + wet).
- 5.1.2. Summer
- 5.1.3. La Nina - cooler temp results in upwelling of nutrient rich water. More fish - good catches for fishermen. More food / can sell & make profit.

Question 6

- 6.1.1. ratio scale
- 6.1.2. contour lines, spot height
- 6.1.3.1. Aerial route
- 6.1.3.2. Track and hiking trail
- 6.1.4. Contour lines are closer together at E than at W.
- 6.1.5. Water for domestic use, farming, recreation etc.

- 6.2.1. A - Vertical aerial photo
B - Oblique aerial photo (High / Low)
- 6.2.2. A - taken at 90° / directly from above.
B - camera is tilted at an angle.

- 6.3.1. System used for capturing, analysing and storing geographic data using a computer.
- 6.3.2. Hardware, Software, Data, User
- 6.3.3. Can track path of cyclones. easier to imp on places not reachable by foot. Can direct rescue teams & disaster areas etc.

analysis and interpretation of satellite data (photo + data) from earth surface and atmosphere.

at different levels: global, regional, local, field, and individual. This facilitates the identification of spatial patterns and relationships between different levels of analysis.

A satellite

device orbiting the

Earth from space which can

take photographs from

space which can be used to

study the Earth's surface and atmosphere.

It is used to

study the Earth's surface and atmosphere.

It is used to

study the Earth's surface and

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