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KZN DEPARTMENT OF EDUCATION
GREENBURY SECONDARY SCHOOL
NOVEMBER EXAMS – 2015
GEOGRAPHY P1

EXAMINER: S. SINGH
MODERATOR: D.RAMASAMI
GRADE: 11

DURATION: 3 HOURS
MARKS: 225
DATE: 12 /11/2015

NAME: _____GRADE/DIV:_____

INSTRUCTIONS AND INFORMATION

1. This paper consists of 11 pages and a separate addendum of 7 pages.
2. This paper consists of TWO sections, namely SECTION A(Question 1 and 2 and SECTION B (Question 3 and 4).
3. Answer ANY THREE questions of 75 marks each.
4. Start each question on a new page.
5. Number your answers correctly according to the numbering system used in in this paper.
6. Write neatly and legibly.

SECTION A – ATMOSPHERE AND GEOMORPHOLOGY

QUESTION 1

1.1 Match the terms in COLUMN B with the descriptions in COLUMN A. Write only the letter of your choice next to the question number.

	COLUMN A	COLUMN B	
1.1.1	The relief of the earth's surface.	A	Desalination
1.1.2	Breakdown of rocks due to chemical, mechanical and temperature differences.	B	Plateau
1.1.3	Occurs when ground water evaporates leaving behind dissolved salts on the surface.	C	Exfoliation
1.1.4	Removal of broken down material by wind, water or ice.	D	Homoclinal ridge
1.1.5	Also known as scarp retreat.	E	Topography
1.1.6	The collective name given to slopes formed when the rock layers are tilted.	F	Backwasting
1.1.7	Outer layers of igneous rock peel off due to temperature changes causing expansion and contraction.	G	Weathering
1.1.8	Large high-lying area that is relatively flat.	H	Erosion
		I	Homoclinal Shifting
		J	Coastal Plain

(8)

1.2 PROVIDE THE CORRECT TERM/CONCEPT FOR THE DESCRIPTIONS BELOW.

1.2.1 It is found at the change in gradient at the base of the slope.

1.2.2 Loose or broken down material after the process of erosion.

1.2.3 When loose sediment changes into hard rock.

1.2.4 Loose material slipping down a slope.

1.2.5 A homoclinal ridge which is symmetrical in shape.

1.2.6 Also referred to as the steeper slope.

1.2.7 A layer of saturated rock through which ground water can flow.

(7)

1.3 REFER TO FIGURE 1.3 SHOWING A SYNOPTIC WEATHER MAP AND ANSWER THE QUESTIONS.

1.3.1 State the season represented by the synoptic map. Give a reason for your answer. 3

1.3.2 Describe the pressure gradient at A and give a reason. 2

1.3.3 Give the name of the pressure cells B,D and E. 3

1.3.4 What is the weather system at C known as? 1

1.3.5 Describe the weather conditions experienced at Maputo. (5x1) 5

1.3.6 What is the isobaric interval on the map? 1

(15)

1.4 STUDY FIGURE 1.4 SHOWING AIR CIRCULATION AND ANSWER THE QUESTIONS.

1.4.1	Give the name used to describe the air circulation on the diagram.	1
1.4.2	Name the cell labelled A.	1
1.4.3	Explain how cell A is formed.	4
1.4.4	Name the winds that blow into area B.	1
1.4.5	What type of pressure is experienced in area C? Give a reason for your answer.	3
1.4.6	State the force that deflects the wind at D.	1
1.4.7	Give a brief definition of the force you identified in Q 1.4.6 above.	2
1.4.8	Explain what you understand by "Ferrel's Law".	2
		(15)

1.5 STUDY FIGURE 1.5 AND ANSWER THE QUESTIONS.

1.5.1	Match the letters P, Q and R with THREE of the following landforms. Mesa, Cuesta, Plateau, Butte.	3
1.5.2	Name the FOUR slope elements labelled A,B.C and D.	4
1.5.3	Differentiate between the shape of slope A and B.	2
1.5.4	State TWO reasons why slope D is most suitable for agriculture.	4
1.5.5	Name the level surface the above that landscape will eventually become with time.	1
		(14)

1.6 REFER TO THE SKETCH FIGURE 1.6 AND ANSWER THE QUESTIONS.

1.6.1	Explain the concept of mass movement.	2
1.6.2	What caused the Hudson's home to slide?	2
1.6.3	Suggest the type of mass movement experienced by the Hudson's by giving evidence from the extract.	4
1.6.4	Write a paragraph suggesting ways how the landslide could have been avoided.(4 answers)	8
		(16)

TOTAL QUESTION 1 = 75

QUESTION 2

2.1 INDICATE WHETHER THE STATEMENTS ARE TRUE OF FALSE.

2.1.1 A Fohn wind is a hot, dry wind.
2.1.2 A boundary separating two air masses of different densities is referred to as a front.
2.1.3 Condensation is the amount of water vapour in the air.
2.1.4 Sheet wash is rain water flowing beneath the earths surface.
2.1.5 A volume of air defined by its temperature and moisture content is known as air mass.
2.1.6 Conduction is the process of transferring heat from one object to another by direct contact.
2.1.7 Solstice is the time of year when day and night are of equal length.
2.1.8 Isohyets are lines on a map joining places of equal temperature.

(8)

2.2 GIVE THE CORRECT TERM FOR THE STATEMENTS BELOW.

2.2.1 When a country has access to enough quality food at all times.
2.2.2 Evergreen, coniferous vegetation found on mountain slopes in the northern temperate latitudes.
2.2.3 A large ecosystem that is characterised by similar climates.
2.2.4 A landscape characterised by deep, steep-sided valleys and narrow valley floors.
2.2.5 Alternate term used to describe harder, more resistant rock layer.
2.2.6 A landform that can be described as an isolated, exposed pile of jointed rocks.
2.2.7 The slowest of all mass movements.

(7)

2.3 STUDY THE MAP FIGURE 2.3 AND ANSWER THE QUESTIONS.

2.3.1 Identify the seasonal wind shown in the sketch. 2
2.3.2 Explain why the sketch represents a summer season. 2
2.3.3 Why the people of India fear the arrival of these winds?(2 answers) 4
2.3.4 Briefly explain the formation of the winds during a winter season. (4x2) 8

(16)

2.4 READ THE ARTICLE FIGURE 2.4 AND ANSWER THE QUESTIONS.

2.4.1	Explain the occurrence of El Nino.	2
2.4.2	In which season in South Africa does El Nino strike?	1
2.4.3	What does the abbreviation ENSO stand for?	1
2.4.4	Contrast how El Nino and La Nina affect the weather in South Africa.	4
2.4.5	Scientists refer to the event when exceptionally cool water lies off the coast of South America as La Nina. Explain what happens in the Pacific ocean during a La Nina event. (3 answers)	6
		(14)

2.5 STUDY THE DIAGRAM FIGURE 2.5 ON INTRUSIVE VOLCANISM AND ANSWER THE QUESTIONS.

2.5.1	Explain the concept intrusive volcanism.	2
2.5.2	Name the features labelled A, B and C on the diagram.	3
2.5.3	State the rock type in which features A and C occurs.	2
2.5.4	Which landform would develop if D on the diagram is exposed to the earth's surface?	1
2.5.5	Explain the difference between magma and lava.	4
2.5.6	What influence would the landscape in the diagram have on agriculture. (2 answers)	4
		(16)

2.6 READ THE ARTICLE FIGURE 2.6 AND ANSWER THE QUESTIONS.

2.6.1	Suggest TWO reasons why rockfalls and mudslides have been a hazard along Chapman's Peak Drive.	4
2.6.2	Describe TWO strategies which have been adopted to prevent rocks from reaching the road.	4
2.6.3	Mention FOUR ways how risks are monitored along Chapman's Peak Drive.	4
2.6.4	Give TWO ways in which people using the road are warned of hazards.	2
		(14)

TOTAL QUESTION 2 = 75

SECTION B

QUESTION 3

3.1 STATE WETHER THE FOLLOWING STATEMENTS ARE TRUE OR FALSE.

3.1.1 Quaternary activities include all the primary, secondary and tertiary activities.
3.1.2 Greenfield sites are the new sites for development located in a city.
3.1.3 One of the millennium development goals to be achieved by 2015 is to increase extreme poverty and hunger.
3.1.4 Urban development involves providing a better life for people working and living in urban areas.
3.1.5 Gender inequality is when men and woman don't have equal conditions for realising their potential to contribute towards and benefit from development.
3.1.6 The informal sector is an unregistered and unregulated sector of the economy.
3.1.7 Multinational companies operate in one country.

(7)

3.2 CHOOSE THE CORRECT ANSWER FROM COLUMN B WHICH MATCHES THE DESCRIPTION IN COLUMN A. WRITE ONLY THE LETTER NEXT TO THE QUESTION NUMBER.

COLUMN A	COLUMN B
3.2.1 Electricity produced by turbines powered by falling water.	A. Solar energy
3.2.2 The amount of carbon dioxide or other carbon compounds in the atmosphere.	B. Geothermal energy
3.2.3 The increase in unsustainable human activities that increase the emission of greenhouse gases.	C. Land degradation
3.2.4 Produced from natural underground heat in rocks and fluids under the earth's surface.	D.Despoliation
3.2.5 Damage and exploitation of the landscape by humans in search for more resources.	E. Hydro power
3.2.6 The effect of coal being extracted from the earth by mining.	F. Carbon footprint
3.2.7 The ability to create and store electricity.	G. Global warming
3.2.8 The control of the use of energy resources to avoid them being exploited.	H. Sustainable energy

(8)

3.3 STUDY THE GRAPH FIGURE 3.3 BASED ON SOUTH AFRICA'S TRADE WITH CHINA AND ANSWER THE QUESTIONS.

3.3.1 Did South Africa have a favourable or unfavourable balance of trade with China between 2008 and 2012? (Give a reason for your answer) 3

3.3.2 With reference to your answer to 3.3.1 above, how did South Africa's balance of trade with China affect the South African economy? 2

3.3.3 Identify ONE trend shown on the graph in the trade relationship between South Africa and China from 1995 to 2015? 1

3.3.4 Evaluate THREE disadvantages of South Africa's trade with global economies such as China? 6

(12)

3.4 READ THE EXTRACT FIGURE 3.4 ON DROUGHT IN AFRICA AND ANSWER THE QUESTIONS.

3.4.1 What does the term development aid refer to? 2

3.4.2 Explain the difference between bilateral aid and humanitarian aid. 4

3.4.3 Mention any TWO countries found in the Horn of Africa. 2

3.4.4 Name ONE humanitarian aid organisation that plays an important role in providing food to countries affected by famine. 1

3.4.5 Except food name ONE other form of humanitarian aid. 1

3.4.6 Do you agree that humanitarian aid should be granted to avoid a humanitarian crises in West Africa and the Sahel ? Motivate your answer by discussing the advantages and disadvantages of providing humanitarian aid. (4x2) 8

(18)

3.5 READ THE ARTICLE FIGURE 3.5 ON THE USE OF NUCLEAR POWER AND ANSWER THE QUESTIONS.

3.5.1 What is nuclear power? 2

3.5.2 Where is South Africa's current and only Nuclear plant located? 1

3.5.3 Despite the many advantages of nuclear power, South Africa still relies heavily on conventional energy resources to generate electricity. Why is this the case? (2 ANSWERS) 4

3.5.4 What was the name of the international convention on climate change held in Durban in 2011? 1

3.5.5 With reference to the advantages and disadvantages of nuclear power, write a short paragraph on whether you agree or disagree with the governments decision to build more nuclear power stations. (4x2) 8

(16)

3.6 STUDY THE DIAGRAM FIGURE 3.6 DEPICTING A SOIL PROFILE AND ANSWER THE QUESTIONS.

3.6.1 What is a soil profile? 2

3.6.2 Of what importance is soil horizon A to humans? (2 answers) 4

3.6.3 In which soil horizon does leaching mainly occur? 1

3.6.4 Explain the role of climate in soil formation under the following headings:

3.6.4.1 Hot Climates 2

3.6.4.2 Dry Climates 2

3.6.5 Is the soil profile indicative of a mature or immature soil, Give a reason for your answer. 3

(14)

TOTAL QUESTION 3 = 75

QUESTION 4

4.1 CHOOSE THE CORRECT TERM THAT DESCRIBES THE STATEMENTS BELOW.

Tertiary activities; Life expectancy; Infant mortality; Industrialised; Capitalism; Primary activities; Modernisation; Communism; Mechanisation

4.1.1 Economic system based on private ownership.
4.1.2 Type of development based on economic growth, technology and industrialisation.
4.1.3 Economic activities providing a service.
4.1.4 The average number of years that a new born baby in a population is expected to live.
4.1.5 The number of infant deaths in a country in a specific year.
4.1.6 A description given to a country that has many manufacturing and technology based industries.
4.1.7 Those activities involving extracting natural resources directly from the environment.

(7)

4.2 GIVE THE CORRECT TERM FOR THE FOLLOWING STATEMENTS.

4.2.1 The reduction of resources as the demand for resources increase.
4.2.2 The use of renewable resources in an uncontrolled way that does not allow them time to regenerate after been used.
4.2.3 The control and sustainable use of resources to make sure that future generations will have access to enough resources to ensure their own survival.
4.2.4 The process to ensure that natural species do not become extinct.
4.2.5 The repeated use of waste or resources that can be broken down and made up a fresh .
4.2.6 An international organisation involved in environmental issues.
4.2.7 South Africa's national energy provider.
4.2.8 This refers to one unit of electrical power.

(8)

4.3 STUDY FIGURE 4.3 SHOWING THE EFFECT OF ACID RAIN AND ANSWER THE QUESTIONS.

4.3.1 What form of pollution is the cause of acid rain? 1
4.3.2 Identify the main greenhouse gas associated with acid rain. 1
4.3.3 Explain TWO detrimental effects of acid rain depicted in the cartoon. 4
4.3.4 What impact does acid rain have on human health? 2
4.3.5 Discuss THREE possible solutions to the problem of acid rain. 6

(14)

4.4 READ THE EXTRACT FIGURE 4.4 AND ANSWER THE QUESTIONS.

4.4.1 Name TWO of the conventional sources of energy used in South Africa. 2
4.4.2 Why does the generating of electricity in South Africa cause high environmental pollution? 2
4.4.3 Mention how the emissions from power stations impact on the health of people. 2
4.4.4 Give a reason for the rapid increase in South Africa's energy needs. 2
4.4.5 Write a paragraph discussing how individual homes can cut down on their energy use. (4x2) 8
(16)

4.5 READ THE ARTICLE IN FIGURE 4.5 AND ANSWER THE QUESTIONS.

4.5.1 Explain the meaning of an "environmental impact assessment". 2
4.5.2 Suggest TWO advantages of developing a hotel in a national park. 4
4.5.3 Mention TWO disadvantages that the development of a hotel could have in a national park. 4
4.5.4 Explain how women could benefit from this development. 2
(12)

4.6. STUDY THE TABLE SHOWING THE HDI FOR DIFFERENT COUNTRIES.

COUNTRY	HDI
NORWAY	0.963
GERMANY	0.930
ANGOLA	0.445
NIGER	0.281

4.6.1 Define the term "Human Development Index". 2
4.6.2 List TWO indicators that are used to calculate the HDI. 2
4.6.3 Identify TWO countries from the table that would be considered a MEDC. Give a reason for your answer. 4
4.6.4 Describe THREE development challenges / problems that a country such as Niger is likely to experience. 6
4.6.5 Outline TWO strategies that the government of Niger can adopt in order to become more economically developed. 4
(18)

TOTAL QUESTION 4 = 75

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27/07/15

GEOGRAPHY

FINAL EXAMS
GRADE 11
2015

ADDENDUM

THIS ADDENDUM CONSISTS OF 7 PAGES

FIGURE 1.3

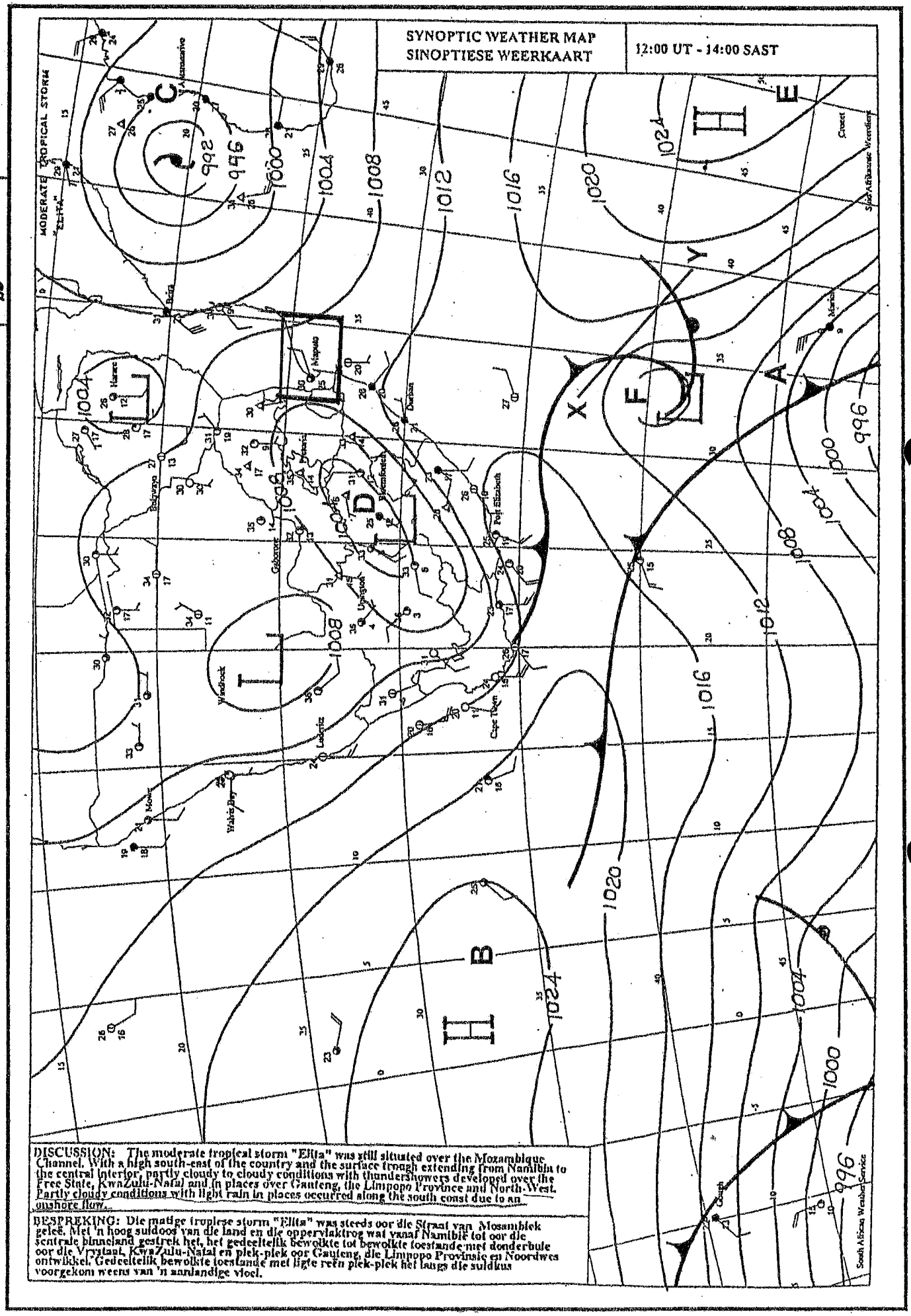
SYNOPTIC WEATHER MAP
SINOPTIESE WEERKAART
12:00 UT - 14:00 SAST
MODERATE TROPICAL STORM "ELITA"
DISCUSSION: The moderate tropical storm "Elita" was still situated over the Mozambique Channel. With a high south-east of the country and the surface trough extending from Namibia to the central interior, partly cloudy to cloudy conditions with thundershowers developed over the Free State, KwaZulu-Natal and in places over Gauteng, the Limpopo Province and North-West. Partly cloudy conditions with light rain in places occurred along the south coast due to an onshore flow.
BESPREKING: Die matige tropiese storm "Elita" was steeds oor die Straat van Mosambiek gelee. Met 'n hoog suidoos van die land en die oppervlaktrog wat vanaf Namibië tot oor die sentrale binneland gestrek het, het gedeeltelik bewolkte tot bewolkte toestande met donderbuie oor die Vrystaat, KwaZulu-Natal en plek-plek oor Gauteng, die Limpopo Provinsie en Noordwes ontwikkel. Gedeeltelik bewolkte toestande met ligte reën plek-plek het langs die suidkus voorgekom weens van 'n aanlandige vloei.
South African Weather Service
MAPUTO
30
25

FIGURE 1.4

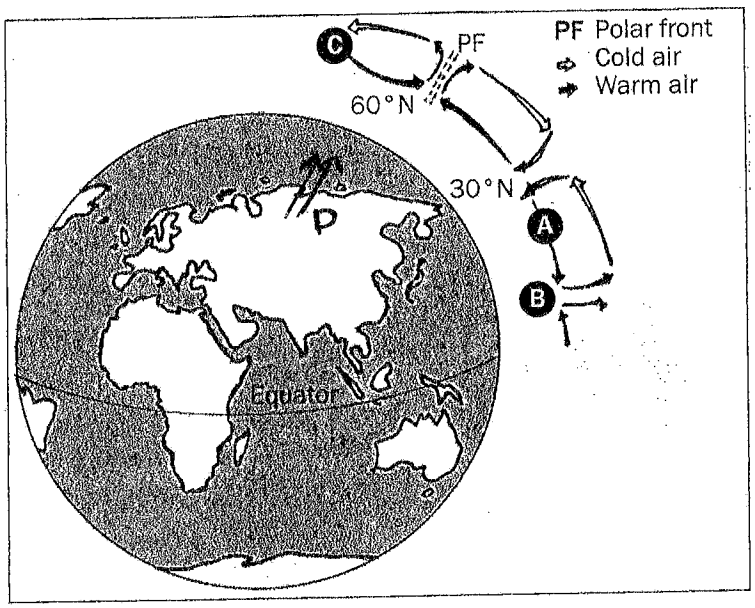

FIGURE 1.5

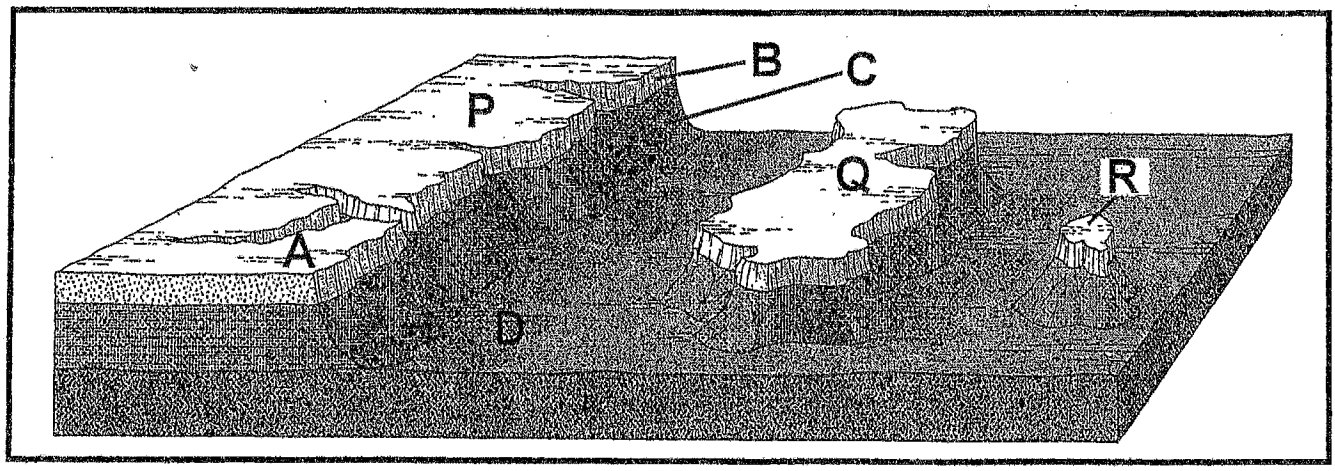

FIGURE 1.6

Los Angeles, a mobile society
By Art Buchwald

I went to Los Angeles last week for rest and recreation, only to discover it had become a rain forest. I did not realize how bad it was until I went to dinner at a friend's house. I had the right address, but when I arrived there was nothing there. I went to a neighbouring house and asked where the Hudsons were.
The neighbour explained that last Monday during the storm their house had slid two streets below him. He was busy removing mud from his swimming pool.

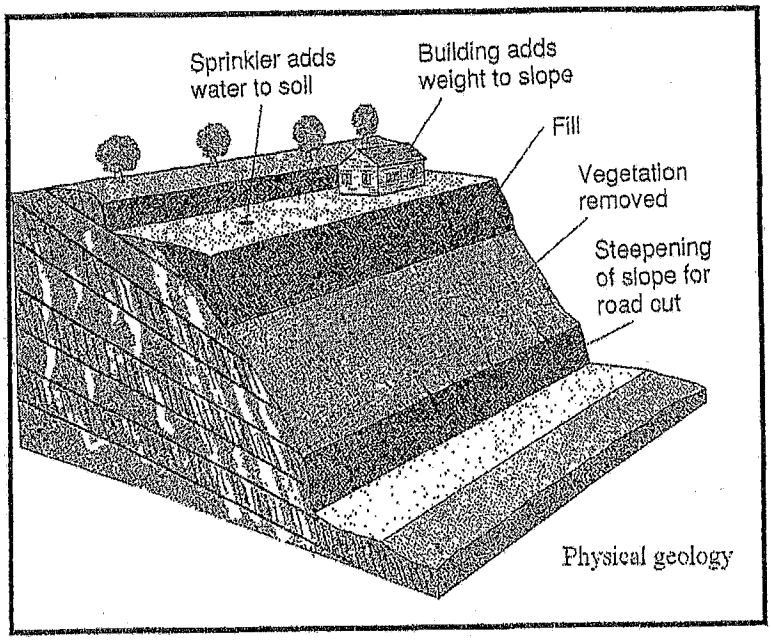

FIGURE 2.3

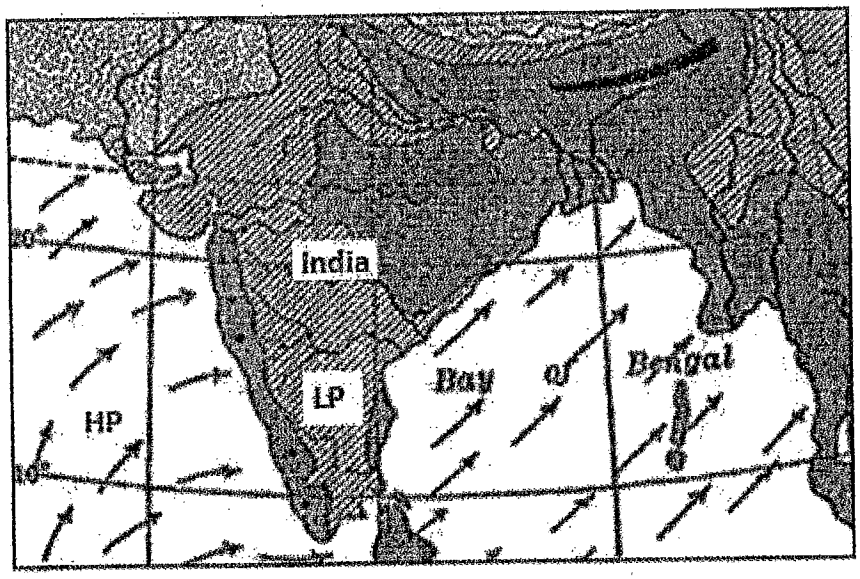

FIGURE 2.4

El Nino and La Nina: The boy child and his little sister

In Spanish, El Nino means 'The Christ child '.This is the name Peruvian fishermen gave to a warm current that sometimes arrived off the South American coast around Christmas time. The warm current was a tell-tale sign that fishing would be bad that season, because El Nino blocks the upwelling of nutrient rich water.

El Nino is responsible for drought in some parts of the world. Since 1525, there have been 113 El Nino's recorded. This is an average of about one El Nino in every four years. The catastrophic El Nino's are spaced roughly 15 years apart.

FIGURE 2.5

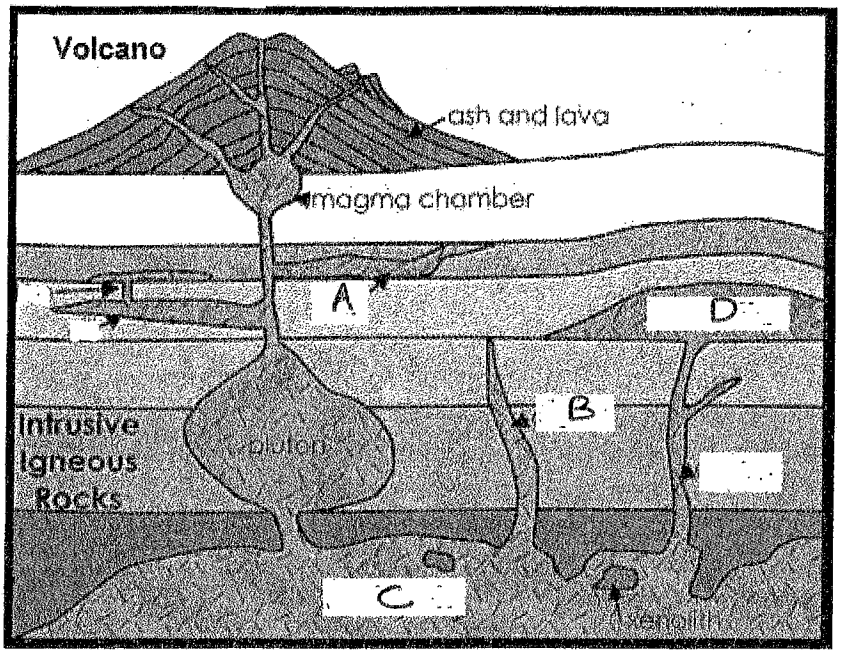

FIGURE 2.6

Chapman's Peak Drive

Chapman's Peak Drive is a popular tourist attraction as it is built into a steep mountainside near Cape Town, high above the coastline. The road requires high maintenance as it lies below a fairly unstable cliff. The road was closed after a passenger in a vehicle was killed by a falling rock in 1999. Rockfalls and mudslides have always been a hazard in the area, especially during winter when this area receives rain. To add to the instability of the slope, the vegetation on the Chapman's Peak mountainside was destroyed by fires in January 2000.

Chapman's Peak Drive was renovated and reopened in 2003. Measures taken to prevent the movement of material and to catch falling rocks include catch fences and concrete canopies. Cuttings have been made in parts of the mountain and sections of the road have been moved so that they are under the protection of an overhang. CCTV cameras, message signs, radar traffic detectors and a weather station were installed to monitor the risk. Road closure alarms were installed that were activated when specified levels of wind velocity and rainfall intensity were experienced. People using this road now pay a toll to finance the maintenance of the structures.

Full environmental impact studies were conducted prior to the renovation. Studies were made on the effect construction would have on:

- the vegetation and wildlife in the area
- the natural drainage systems
- the quantity and quality of stormwater drainage
- the natural heritage in the area.

FIGURE 3.3

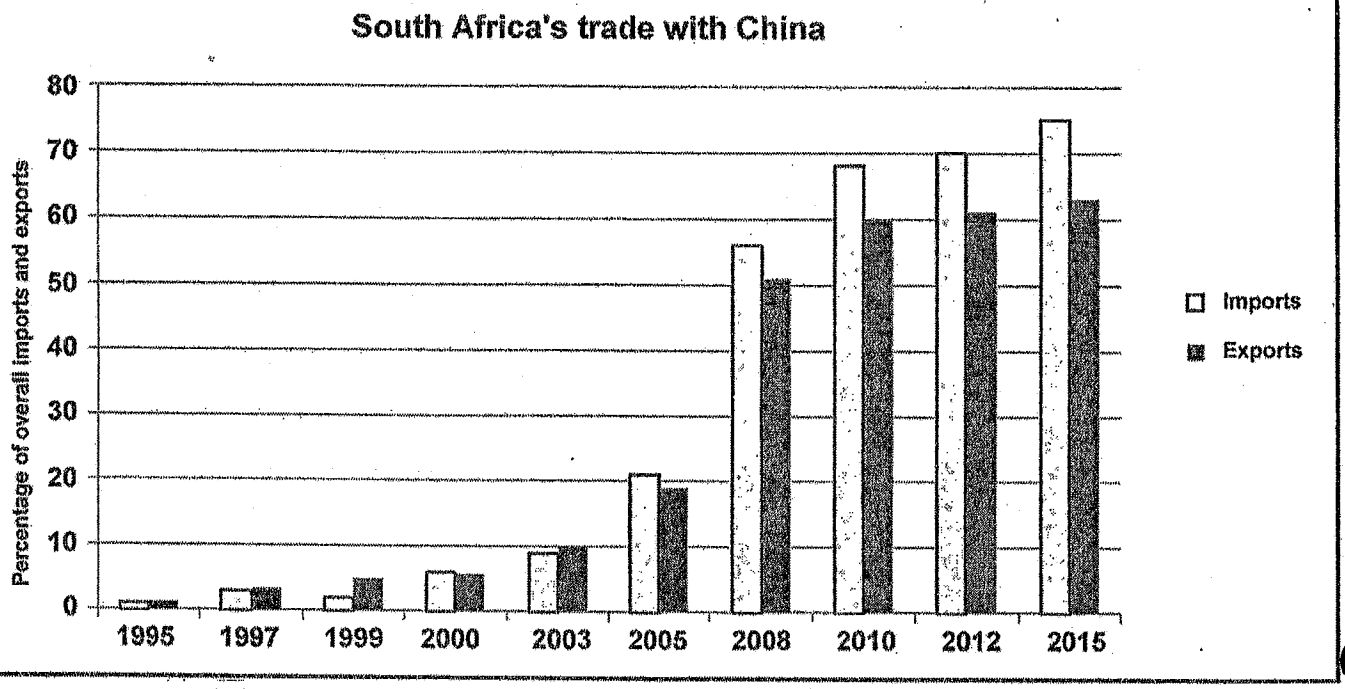

FIGURE 3.4

EAST AFRICA'S DROUGHT: THE AVOIDABLE DISASTER

The deaths of tens of thousands of people during the drought in East Africa could have been avoided if the international community, donor governments and humanitarian agencies had responded earlier and more swiftly to clear warning signs that a disaster was in the making, according to a new report.

Figures compiled by the Department for International Development suggest that between 50 000 and 100 000 people, more than half of them children under five, died in the 2011 Horn of Africa crisis that affected Somalia, Ethiopia and Kenya. Hundreds of thousands remain at continuing risk of malnutrition.

The authors of the report, published by Save the Children and Oxfam, suggest current emergency response systems, which they believe to be seriously flawed, will soon be tested again as new humanitarian crises loom in West Africa and the Sahel, where growing food shortages are reported.

[Adapted from *The Guardian*, Wednesday 18 January 2012]

FIGURE 3.5

While the likely cost of South Africa's planned nuclear power stations has been grabbing headlines, a more pertinent question is: When will they actually be built?

The IRP2010 plan – released in April 2010 – called for the construction of six nuclear stations generating 9,6 GW of energy by 2030, with a new 1 600 MW nuclear power plant to be built every year between 2023 and 2026, and the last two in 2028 and 2029.

In practical terms, a decision needed to be made within a year to go ahead with the first two of those planned six new nuclear stations. That has not happened. It was announced in mid-September that South Africa was postponing a decision by one year for safety reasons after the tsunami incident at Japan's Fukushima nuclear plant in March 2012.

It was stressed that, globally, coal was 'here to stay' as an energy source until at least 2035, despite intense environmental opposition.

– Brendan Ryan (adapted)

FIGURE 3.6

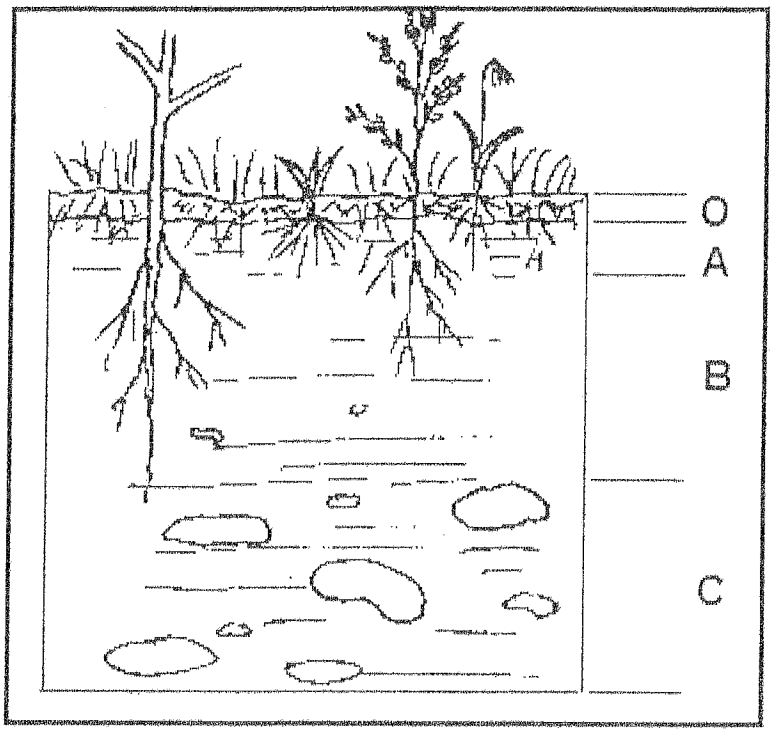

FIGURE 4.3

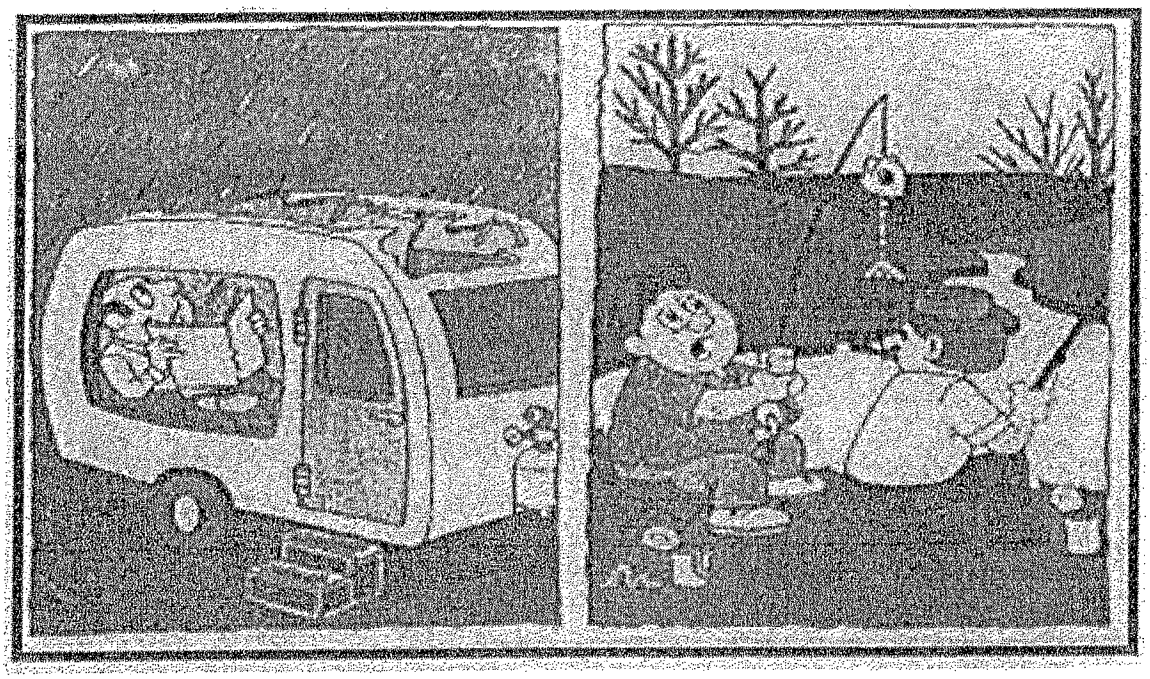

FIGURE 4.4

South Africa emits more global warming gases than any other country on the continent and is the 13th largest emitter in the world, according to U.S. government analysis. The independent Carbon Disclosure Project, which tracks climate change information, says emissions from electricity generation — almost solely from Eskom — accounted for 45 per cent of South Africa's emissions last year.

"Why do we emit so much?" said Steve Lennon, a top Eskom executive. "It's because we are 90 per cent dependent on coal."

"That's an uncomfortable position for us at Eskom," Lennon told The Associated Press. (24 November 2011)

FIGURE 4.5

Kruger Park hotel will need environmental impact assessment

An environmental impact assessment (EIA) would have to be completed before a proposed four-star hotel, the Safari Hotel, in the Kruger National Park could be approved, the Environmental Affairs Department said. The Minister said they were not in principle opposed to hotels in parks on condition that the necessary environmental processes were followed. The outcome of the EIA would determine whether the department would grant final authorisation. The department had been grappling with the concept of development within the park since 1999.

The government said it sees nothing contradictory in the establishment of hotels in national parks as long as they are approved through EIAs. There was already an existing hotel in the Golden Gate National Park. Several famous international parks around the world have hotels as part of the diverse accommodation offered to tourists.

(Adapted: *Cape Times*, August 2011)

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27/05/15

Marking Memo
Grade 11 Geog
Nov - 2015

Question 1

1.1.1. E ✓

1.1.2. G ✓

1.1.3. A ✓

1.1.4. H ✓

1.1.5. F ✓

1.1.6. D ✓

1.1.7. C ✓

1.1.8. B ✓

1.2.1 Knickpoint ✓

1.2.2. Debris ✓

1.2.3 Lithify

1.2.4 Slumps

1.2.5 Hogsback

1.2.6 Scarp slope

1.2.7. Aquifer

1.3.1. Summer ✓

Thermal low / heat low over interior.

MLC too far south. / Trop Cyc / HP - away from Cost

1.3.2. Steep pressure gradient ✓

1.3.3. B - South Atlantic High D - Thermal low E - South Indian High

1.3.4. Tropical cyclone ✓

1.3.5. Air temp - 30° Dew point temp - 25°

Cloud cover - Partly cloudy Wind Speed - 10 knots

Wind direction - NE/

1.3.6. 4mb ✓

1.4.1. Tricellular Arrangement //

1.4.2. A - Hadley or Tropical ✓

1.4.3. High temp at equator causes air to be heated and rises. This results in a L.P. As air rises, it cools and sinks back to the surface.

1.4.4. Tropical easterlies / Trade winds.

1.4.5 High Pressure - Low temp. area.

1.4.6. Coriolis force

1.4.7. A force produced by the rotation of the earth which causes winds to change direction

1.4.8. A law that states - when you look back into the wind deflection takes place to the left in the S.H. and vice versa

1.5.1. P - Plateau
Q - Mesa
R - Butte

1.5.2. A - Crest
B - Cliff
C - Talus
D - Pediment

1.5.3. A - Convex in shape
B - Vertical to horizon

1.5.4. Gentle slope
Water does not run off
Accumulation of fertile soil.

1.5.5. Plain / Pediplain

1.6.1. Downward movement of weathered material under the influence of gravity.

1.6.2. rain / saturated ground.

1.6.3. Mudflow / mudslide - neighbour was removing mud from pool.

1.6.4. Gabions to stabilise slopes.

Retaining walls to hold slope in place.

Use of wire nets to hold slope together.

Spray concrete - shotcrete

Rock bolts to reinforce cliffs + slopes.

Limit building on slopes.

Increase foundation depth.

Cut terms to reduce slope angle.

Question 2.

2.1.1. True

2.1.2. True

2.1.3. False

2.1.4. False

2.1.5. True

2.1.6. True

2.1.7. False

2.1.8. False.

2.2.1. Food security

2.2.2. Alpine

2.2.3 Biome

2.2.4 Canyon

2.2.5 Cap rock

2.2.6 Tors

2.2.7. Soil Creep.

2.3.1. Monsoon winds

2.3.2. HP on ocean (low temp) LP on land (high temp).

2.3.3. Brings heavy rains that cause floods.
Damage / destruction to homes / farms.
Loss of lives etc.

2.3.4. In winter land is cold - HP forms due to descending cold air.
Oceans are warmer than land - LP forms over oceans.
Cool, dry air / winds move from land to ocean (off-shor winds).
Winds blow from NE - results in dry weather.

2.4.1. Occurs when there is a disruption in the ocean atmosphere systems in the Southern Pacific Ocean.

2.4.2. Summer

2.4.3. El Nino Southern Oscillation

2.4.4. El Nino - causes hotter, drier summers + sometimes drought.
La Nina - milder and wetter summers + sometimes floods.

2.4.5. Tropical easterly winds / trade winds are stronger than normal.
Upwelling of cold water is increased - eastern side of Pacific gets very cold.
Heavy rain on eastern side of Australia, SE Asia + west of Pacific Ocean.
South America experiences drier than normal conditions. (Any 3).

2.5.1. When molten rock does not reach the surface of the earth, magma intrudes into sedimentary layers and forms various features.

2.5.2. A - Sill
B - Dyke
C - Batholith

2.5.3. A - horizontal sedimentary
C - granite

2.5.4. Dome

2.5.5. Magma - molten rock beneath / inside earth
Lava - molten rock above earth's surface.

* 2.5.6 Shale valleys - good for farming / hard rock. Influences collection of rainwater - Also accept negative aspects of rock.

* 2.6.1. Mountains area / heavy winter rain / strong winds. (any 2) dangerous to motorists

2.6.2. Catch fences and concrete canpies. Cuttings have been made in parts of the mountain and sections of road removed so that they under the protection of an overhang. (Any 2.)

2.6.3. CCTV cameras
message signals
radar traffic detectors
weather station

2.6.4. Road closure alarms
Weather report
Broadcast on local radio stations. etc.

Section B

Question 3

3.1.1. False

3.1.2. False.

3.1.3 False

3.1.4 True

3.1.5 True

3.1.6 True

3.1.7 False.

3.2.1. E

3.2.2 F

3.2.3 G

3.2.4 B

3.2.5 C

3.2.6 D.

3.2.7. A

3.2.8. H

3.3.1. Unfavourable - Imports are greater than exports.

3.3.2. Less foreign income. Lowers to GDP. Unstable economy. No job creation in SA. (Any 1)

3.3.3. Increase in trade with China.

3.3.4. SA will import more from China.
Chinese goods will flood our markets.
Results in unemployment increases in SA.
GDP will get lower.
Unstable economy.

3.4.1. Aid provided to create long-term sustainable, economic growth - given by MEDC's to LEDC's.

3.4.2. Bilateral - also known as conditional aid, involves loans which have conditions of payment attached.

humanitarian - associated with crisis or relief aid - given to people in immediate distress by NGO's, govt's etc.

3.4.3. Somalia, Ethiopia Kenya (Any 2)

3.4.4. Oxfam / Gift of Gives.

3.4.5. clothing / shelter / donations / medical (any 1), read

3.4.6: Advantages.

- Scholarships help to further study + help with education costs.
- Recipient countries can receive large sums of money to invest in development of that country.
- Machinery requiring spares / expertise can be purchased - both countries can benefit.
- Money can be used to improve schools, health care and basic needs.

Disadvantages

- Govt. can hide aid money + use it for private use.
- Food aid can be sold privately.
- Aid can be perceived as a handout.
- Projects can be inappropriate to the needs of the people.

3.5.1. Energy produced by nuclear fusion / from uranium. / non-conventional energy.

3.5.2. Koeberg / Western Cape.

3.5.3. Large coal reserves in SA.
∴ Coal seams are close to surface - easily obtained cheap form of electricity. (Any 2).

3.5.5. Agree. 3.5.4. Cop 17

- small amt. of uranium contains alot of energy.
- Uranium is easily available.
- mining costs are cheap.
- produces less CO_2.
- no global warming / acid rain
- small number of workers needed.
- uranium does not take up much storage space.

Disagree

- radio-active waste produced has to be stored safely.
- very expensive to build plants
- threat of radio-activity leaks.
- consequences of radio-active fallouts can have devastating effects.
- high risks of accidents.
- possibility of explosions.

3.6.1. A vertical section through soil consisting of different horizons.

3.6.2. Topmost layer of soil / where seeds germinate and roots grow / Life supporting layer (Any 2)

3.6.3 A horizon

3.6.4.1. Deep chemical weathering takes place, high rainfall → more leaching

3.6.4.2. Salination / calcification occurs.

3.6.5. Mature - deep root system / all layers are present.

Question 4

4.1.1. Capitalism

4.1.2. Modernisation

4.1.3 Tertiary Activities

4.1.4 Life expectancy.

4.1.5 Infant mortality

4.1.6 Industrialised

4.1.7. Primary Activities.

4.2.1. Resource depletion

4.2.2. Exploitation / Resource exploitation.

4.2.3. Sustainability

4.2.4. Preservation

4.2.5. Recycling

4.2.6. Greenpeace

4.2.7. Eskom

4.2.8. Watt

4.3.1. Air pollution

4.3.2. Sulphur dioxide.

4.3.3. Acid rain corrodes metal.

- Fish die when in contact with acid rain.
- destroys the ecosystem.
- causes trees to die
- soil infertility (Any 2)

4.3.4. Skin disease

Lung & heart disorders

- linked to Alzheimer's disease.

4.3.5 Decrease reliance on fossil fuels. Alternative energy sources. Reduce emissions from cars. Afforestation. Encourage use of public transport. (Any 3).

4.4.1. Coal, oil, gas (any 2).
4.4.2. SA uses coal - burning releases CO_2.
4.4.3. Respiratory disorders, Asthama, Bronchitis, Irritants in eyes.
4.4.4. Increase in population. Country becoming more industrialised. etc.
4.4.5. Switch off lights when not in use.
Install solar panel geysers.
Switch off geysers at night.
Don't leave appliances on stand-by mode.
Change bulbs to energy savers.
Don't run pool-pumps too often.
Cover up when cold instead of using heaters.

4.5.1. Assessment done on environment to judge impact of development.
4.5.2. Attracts more visitors / tourists to the Park.
Park gets advertised via the hotel adverts.

4.5.3. Upset natural environment / habitat of animals.
Building of infrastructure could affect beauty of natural environment.
Increase pollution levels / noise levels.
4.5.4. Availability of jobs that requires mainly females.

4.6.1. Socio-economic index for measuring quality of life.

4.6.2. Life expectancy / longevity
Literacy levels / knowledge
GDP / GNP per capita / standard of living.
Any 2 of the 3 above.

4.6.3. Norway + Germany - HDI close to 1 / over 9.

4.6.4. Lack of resources
Poor education levels.
Poor healthcare
Poor governance. (Any 3

4.6.5. Shift from primary activities to mainly secondary + tertiary.
Improve trade relations.
Improve education levels
Develop skills etc. (Any 2).