



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

**NATIONAL
SENIOR CERTIFICATE**

GRADE 11

GEOGRAPHY P1

EXEMPLAR 2013

MARKS: 300

TIME: 3 hours

This question paper consists of 12 pages and a 10-page annexure.

INSTRUCTIONS AND INFORMATION

1. This question paper consists of FOUR questions.
2. Answer ANY THREE questions of 100 marks each.
3. For the paragraph style question you may refer to ONE idea which you must discuss in depth OR to different ideas which you must discuss in less depth.
4. ALL diagrams are included in the ANNEXURE.
5. Leave a line between subsections answered.
6. Start each question AT THE TOP of a NEW page.
7. Number the answers correctly according to the numbering system used in this question paper.
8. Do NOT write in the margins of the ANSWER BOOK.
9. Where possible, illustrate your answers with labelled diagrams.
10. Write clearly and legibly.

SECTION A: THE ATMOSPHERE AND GEOMORPHOLOGY

Answer at least ONE question from this section. If you answer ONE question in SECTION B, you must answer TWO questions in SECTION A.

QUESTION 1

- 1.1 Complete each of the following statements by choosing a word/term from the list below. Write only the word/term next to the question number (1.1.1 to 1.1.5) in the ANSWER BOOK.

global air circulation; westerly winds; trade winds; geostrophic wind;
Coriolis force; pressure gradient force

- | | | | |
|-------|---|---------|-----|
| 1.1.1 | The ... causes air to be deflected from its original path. | (1 x 2) | (2) |
| 1.1.2 | Large-scale movement of air in the atmosphere is referred to as ... | (1 x 2) | (2) |
| 1.1.3 | The difference in air pressure causing air to move from an area of high pressure to an area of low pressure is referred to as the ... | (1 x 2) | (2) |
| 1.1.4 | Winds that blows parallel to isobars in the upper atmosphere are ... | (1 x 2) | (2) |
| 1.1.5 | Winds that blow in the tropics are called ... | (1 x 2) | (2) |
| 1.2 | Refer to FIGURE 1.2 showing igneous intrusions and answer the questions that follow. | | |
| 1.2.1 | Name the largest igneous intrusion labelled 3 . | (1 x 2) | (2) |
| 1.2.2 | Label igneous intrusions 1, 2 and 7 . | (3 x 2) | (6) |
| 1.2.3 | Which landform would develop if 1 is exposed to the Earth's surface? | (1 x 2) | (2) |
| 1.3 | Refer to FIGURE 1.3 showing the West African monsoon winds and answer the questions that follow. | | |
| 1.3.1 | What is a <i>monsoon wind</i> ? | (1 x 2) | (2) |
| 1.3.2 | Identify the wind which dominates West Africa from January to March and from June to September respectively. | (2 x 2) | (4) |
| 1.3.3 | Describe the weather in West Africa as a result of the wind that blows from June to September. | (2 x 2) | (4) |
| 1.3.4 | State ONE problem associated with the monsoon wind that blows from January to March. | (1 x 2) | (2) |
| 1.3.5 | State ONE problem associated with the monsoon wind that blows from June to September. | (1 x 2) | (2) |

- 1.4 Study the cartoon on drought in FIGURE 1.4 and answer the questions that follow.
- 1.4.1 Define the term *drought*. (1 x 2) (2)
- 1.4.2 State TWO causes of drought. (2 x 2) (4)
- 1.4.3 Describe TWO impacts of drought on people and the environment. (2 x 2) (4)
- 1.4.4 Why are developing countries more vulnerable to drought than developed countries? (2 x 2) (4)
- 1.4.5 Write a short paragraph in which you explain sustainable strategies that can be implemented to manage droughts effectively. (6 x 2) (12)
- 1.5 Read the article in FIGURE 1.5 and answer the questions that follow.
- 1.5.1 Define the term *landslide*. (1 x 2) (2)
- 1.5.2 Where do landslides generally occur? (1 x 2) (2)
- 1.5.3 State TWO causes of landslides. (2 x 2) (4)
- 1.5.4 Describe THREE impacts of landslides on people and the environment. (3 x 2) (6)
- 1.5.5 Write a short paragraph in which you explain strategies that can be used to prevent, or minimise, the effect of mass movements. (6 x 2) (12)
- 1.6 Refer to FIGURE 1.6 showing *cuestas* and answer the questions that follow.
- 1.6.1 What is a *cuesta*? (1 x 2) (2)
- 1.6.2 Describe the difference in the formation of *cuestas* in diagrams **A** and **B**. (2 x 2) (4)
- 1.6.3 Describe the difference between the *dip slope* and the *scarp slope* of a *cuesta*. (2 x 2) (4)
- 1.6.4 Discuss how humans can use *cuestas*. (2 x 2) (4)
- [100]**

QUESTION 2

- 2.1 Study FIGURE 2.1 based on seasonal temperature changes and answer the questions that follow. All information in FIGURE 2.1 represents seasons for the Northern Hemisphere.
- 2.1.1 Give the term used when the sun shines directly over the Tropic of Cancer or the Tropic of Capricorn. (1 x 2) (2)
- 2.1.2 How does the length of day and night compare to one another in the Southern Hemisphere when it experiences a summer solstice? (1 x 2) (2)
- 2.1.3 During which season in the Northern Hemisphere does the Arctic Circle experience 24 hours of night? (1 x 2) (2)
- 2.1.4 Describe the length of day and night when the Southern Hemisphere experiences its spring equinox. (1 x 2) (2)
- 2.1.5 What do we call the path that the Earth follows around the sun? (1 x 2) (2)
- 2.2 Refer to FIGURE 2.2 showing a canyon landscape. Indicate whether the following statements are TRUE or FALSE.
- 2.2.1 Canyon landscapes develop in tilted sedimentary rock. (1 x 2) (2)
- 2.2.2 Downward erosion is the main erosion process responsible for the development of a canyon. (1 x 2) (2)
- 2.2.3 Canyon slopes are uniformly shaped. (1 x 2) (2)
- 2.2.4 A canyon is typically wide at the surface and narrow at its base. (1 x 2) (2)
- 2.2.5 The youngest rock layers are found near the base of the canyon. (1 x 2) (2)
- 2.3 Read the article in FIGURE 2.3 based on the impact of El Niño.
- 2.3.1 State the condition necessary for an El Niño event to occur. (1 x 2) (2)
- 2.3.2 Explain why the meteorologist links the sinking of the Titanic to El Niño. (2 x 2) (4)
- 2.3.3 If the Titanic had been launched in recent years, the disaster could have been avoided. Why do you think this is the case? (2 x 2) (4)
- 2.3.4 Discuss the impact that an El Niño event has on Africa's environment. (3 x 2) (6)

- 2.4 Refer to FIGURE 2.4 showing desertification in Africa.
- 2.4.1 What is *desertification*? (1 x 2) (2)
- 2.4.2 State ONE way in which humans contribute to desertification. (1 x 2) (2)
- 2.4.3 Describe the extent to which South Africa is threatened by desertification. (2 x 2) (4)
- 2.4.4 Discuss TWO effects of desertification on the economy of Africa. (2 x 2) (4)
- 2.4.5 Write a short paragraph in which you suggest sustainable ways to prevent and reverse desertification in Africa. (6 x 2) (12)
- 2.5 Refer to FIGURE 2.5 showing two landforms that develop in succession to one another.
- 2.5.1 Identify landforms **A** and **B**. (2 x 2) (4)
- 2.5.2 Name the underlying igneous intrusion from which both these landforms developed. (1 x 2) (2)
- 2.5.3 Briefly explain why landform **A** assumes a rounded shape. (3 x 2) (6)
- 2.5.4 Write a short paragraph in which you explain how landform **B** develops. (6 x 2) (12)
- 2.6 Refer to FIGURE 2.6 shows the typical slope elements/forms associated with a slope.
- 2.6.1 Identify the slope elements/forms labelled **A**, **B**, **C** and **D**. (4 x 2) (8)
- 2.6.2 Give ONE characteristic of each of the slope elements/forms labelled **A** and **C**. (2 x 2) (4)
- 2.6.3 Explain why slope element/form **D** is useful to farmers. (2 x 2) (4)
- [100]**

SECTION B: DEVELOPMENT, RESOURCES AND SUSTAINABILITY

Answer at least ONE question from this section. If you answer ONE question in SECTION A, you must answer TWO questions in SECTION B.

QUESTION 3

3.1 Choose a term from COLUMN B that matches a description in COLUMN A. Write only the letter (A–F) next to the question number (3.1.1–3.1.5) in the ANSWER BOOK.

COLUMN A		COLUMN B	
3.1.1	The total value of goods and services produced in a country in a year	A	economic development
		B	Gross Domestic Product
3.1.2	A measure of a country's wealth and how it is generated	C	Human Development Index
		D	foreign exchange
3.1.3	Money earned from exports	E	balance of trade
3.1.4	Measuring the non-economic aspects of a country's development	F	balance of payments
3.1.5	The difference in the monetary value of a country's exports and imports		

(5 x 2) (10)

3.2 Choose the correct word/term in brackets to make each of the following statements TRUE. Write only the correct word/term next to the question number (3.2.1–3.2.5) in the ANSWER BOOK.

- 3.2.1 A (natural/economic) resource is obtained from the environment. (1 x 2) (2)
- 3.2.2 (Biotic/Abiotic) resources consist of non-living things. (1 x 2) (2)
- 3.2.3 (Eluviation/Iluviation) occurs when soil particles are transported in solution or suspension downward through soil. (1 x 2) (2)
- 3.2.4 Hydroelectricity is a (renewable/non-renewable) form of energy. (1 x 2) (2)
- 3.2.5 (Gravity/Deforestation) is a natural cause of soil erosion. (1 x 2) (2)

- 3.3 Refer to FIGURE 3.3 showing causes of soil erosion and answer the questions that follow.
- 3.3.1 Identify TWO causes of soil erosion visible in the diagram. (2 x 2) (4)
- 3.3.2 Briefly explain the process of soil erosion illustrated in the diagram. (2 x 2) (4)
- 3.3.3 Discuss any THREE effects of soil erosion on the environment. (3 x 2) (6)
- 3.3.4 Write a short paragraph in which you explain sustainable management strategies that can be used to prevent and control soil erosion. (6 x 2) (12)
- 3.4 South Africa has rich coal deposits in the north-east of the country, and as such the majority of South Africa's coal-fired plants are located in Mpumalanga. Historically, this has given South Africa access to cheap electricity, but it is also one of the leading causes why the country is on the top 20 list of carbon dioxide emitting countries.
- 3.4.1 Coal is not a sustainable source of energy. Explain this statement. (2 x 2) (4)
- 3.4.2 State TWO environmental impacts of coal mining and thermal power stations. (2 x 2) (4)
- 3.4.3 Discuss THREE management strategies that can be put in place to reduce South Africa's carbon emissions from coal-fired power stations. (3 x 2) (6)
- 3.5 Read the extract from an article in FIGURE 3.5 and answer the questions that follow.
- 3.5.1 What does the term *development aid* refer to? (1 x 2) (2)
- 3.5.2 What is the difference between *bilateral aid* and *humanitarian aid*? (2 x 2) (4)
- 3.5.3 Name ONE humanitarian aid organisation that plays an important role in providing food to countries affected by famine. (1 x 2) (2)
- 3.5.4 Except food, name ONE other form of humanitarian aid. (1 x 2) (2)
- 3.5.5 Do you agree that humanitarian aid should be granted to avoid a humanitarian crisis in West Africa and the Sahel? Motivate your answer by discussing the advantages and/or the disadvantages of providing humanitarian aid. (6 x 2) (12)

- 3.6 Refer to the cartoon in FIGURE 3.6 showing trade and answer the questions that follow.
- 3.6.1 Is the man with the cigar promoting free trade? (1 x 2) (2)
- 3.6.2 Give ONE reason for your answer to QUESTION 3.6.1. (1 x 2) (2)
- 3.6.3 Who in the cartoon represents the following:
- (a) More economically developed countries (1 x 2) (2)
- (b) Less economically developed countries (1 x 2) (2)
- 3.6.4 Give TWO regulations used to prevent free trade. (2 x 2) (4)
- 3.6.5 Explain why free trade is to the advantage of less economically developed countries. (3 x 2) (6)
- [100]**

QUESTION 4

- 4.1 Give ONE word/term for each of the following descriptions by choosing a word/term from the list below. Write only the word/term next to the question number (4.1.1 to 4.1.5) in the ANSWER BOOK.

primary activities; economic indicators; tertiary activities;
export-led development; secondary activities; Rostow development model

- 4.1.1 Countries pass through five stages of economic development (1 x 2) (2)
- 4.1.2 Shows the level of wealth and experience of a country (1 x 2) (2)
- 4.1.3 Activities that provide a service (1 x 2) (2)
- 4.1.4 The extraction of natural resources directly from the Earth's surface (1 x 2) (2)
- 4.1.5 A trade and economic policy aimed at speeding up the industrialisation process of a country (1 x 2) (2)
- 4.2 Various options are provided as possible answers to the following questions. Choose the correct answer and write only the letter (A–D) next to the question number (4.2.1–4.2.5) in the ANSWER BOOK.
- 4.2.1 An example of a non-renewable resource:
 A Soil
 B Water
 C Coal
 D Wind (1 x 2) (2)
- 4.2.2 Limiting damage to the environment can be achieved through ...
 A deforestation.
 B resource substitution.
 C population growth.
 D resource exploitation. (1 x 2) (2)
- 4.2.3 ... is an example of a trade barrier.
 A Import quotas
 B Guaranteed product prices
 C Minimum salary standards
 D Minimum product prices (1 x 2) (2)

- 4.2.4 The average income per person per year in a country is referred to as the ...
- A GDP.
B GDP per capita.
C GNP.
D GNP per capita. (1 x 2) (2)
- 4.2.5 ... is an example of a demographic development indicator.
- A The literacy rate
B The population growth rate
C Gender equality
D Access to health care (1 x 2) (2)
- 4.3 The newspaper article in FIGURE 4.3 refers to the future use of nuclear power in South Africa.
- 4.3.1 What is *nuclear power*? (1 x 2) (2)
- 4.3.2 Where is South Africa's current and only nuclear plant located? (1 x 2) (2)
- 4.3.3 Despite the many advantages of nuclear power, South Africa still relies heavily on conventional energy resources such as coal to generate electricity. Why is this the case? (2 x 2) (4)
- 4.3.4 Give ONE reason for the delay in building nuclear power plants in South Africa. (1 x 2) (2)
- 4.3.5 With reference to the advantages and disadvantages of nuclear power, write a short paragraph on whether you agree, or disagree, with the government's decision to build more nuclear power stations. (6 x 2) (12)
- 4.4 Refer to FIGURE 4.4 showing a typical soil profile.
- 4.4.1 What is a *soil profile*? (1 x 2) (2)
- 4.4.2 What is a *soil horizon*? (1 x 2) (2)
- 4.4.3 Of what importance is soil horizon **A** to humans? (2 x 2) (4)
- 4.4.4 In which soil horizon does leaching mainly occur? (1 x 2) (2)
- 4.4.5 What role does bedrock (**R**) play in soil formation? (1 x 2) (2)
- 4.4.6 Explain the role of climate in soil formation. (2 x 2) (4)
- 4.4.7 Why can one say that the soil profile illustrated in FIGURE 4.4 is that of mature soil? (1 x 2) (2)

- 4.5 Refer to the cartoon in FIGURE 4.5 showing globalisation.
- 4.5.1 Define the term *globalisation*. (1 x 2) (2)
- 4.5.2 What message does the cartoon portray about globalisation? (1 x 2) (2)
- 4.5.3 According to the cartoon, which country plays a major role in globalisation? (1 x 2) (2)
- 4.5.4 Give THREE reasons why many people are opposing globalisation. (3 x 2) (6)
- 4.5.5 In a short paragraph, give suggestions how globalisation can be more beneficial to developed countries. (6 x 2) (12)
- 4.6 Refer to FIGURE 4.6 which shows gender inequality.
- 4.6.1 What does the term *gender inequality* mean? (1 x 2) (2)
- 4.6.2 According to the bar graph, which gender is discriminated against? (1 x 2) (2)
- 4.6.3 State ONE form of gender inequality. (1 x 2) (2)
- 4.6.4 Which country in the bar graph experiences the worst gender inequality? (1 x 2) (2)
- 4.6.5 Give TWO reasons why gender inequality is more prominent in less economically developed countries than in economically developed countries. (2 x 2) (4)
- 4.6.6 State TWO measures that South Africa has put in place to address gender inequality. (2 x 2) (4)
- [100]**
- GRAND TOTAL: 300**



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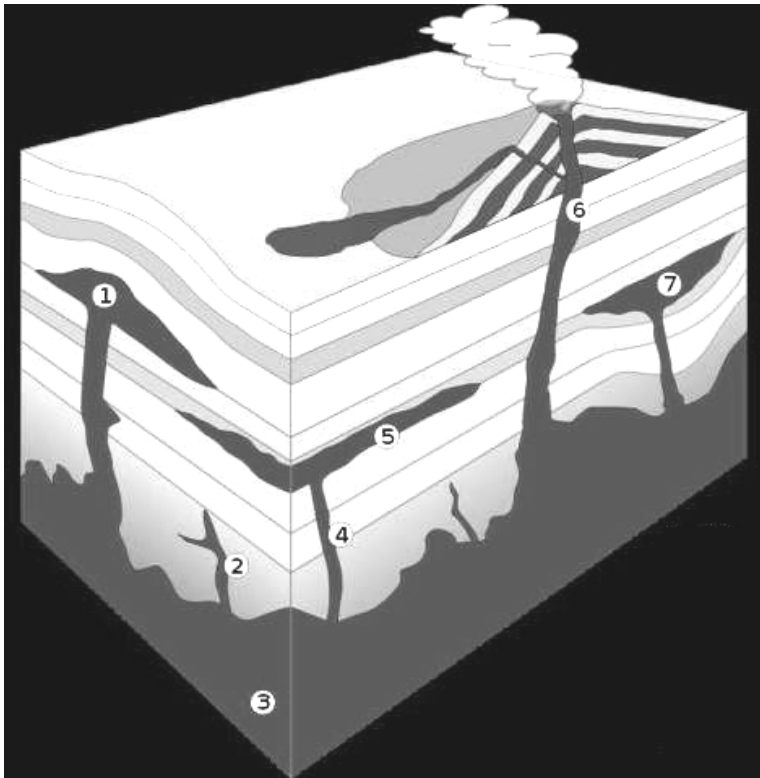
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ANNEXURE

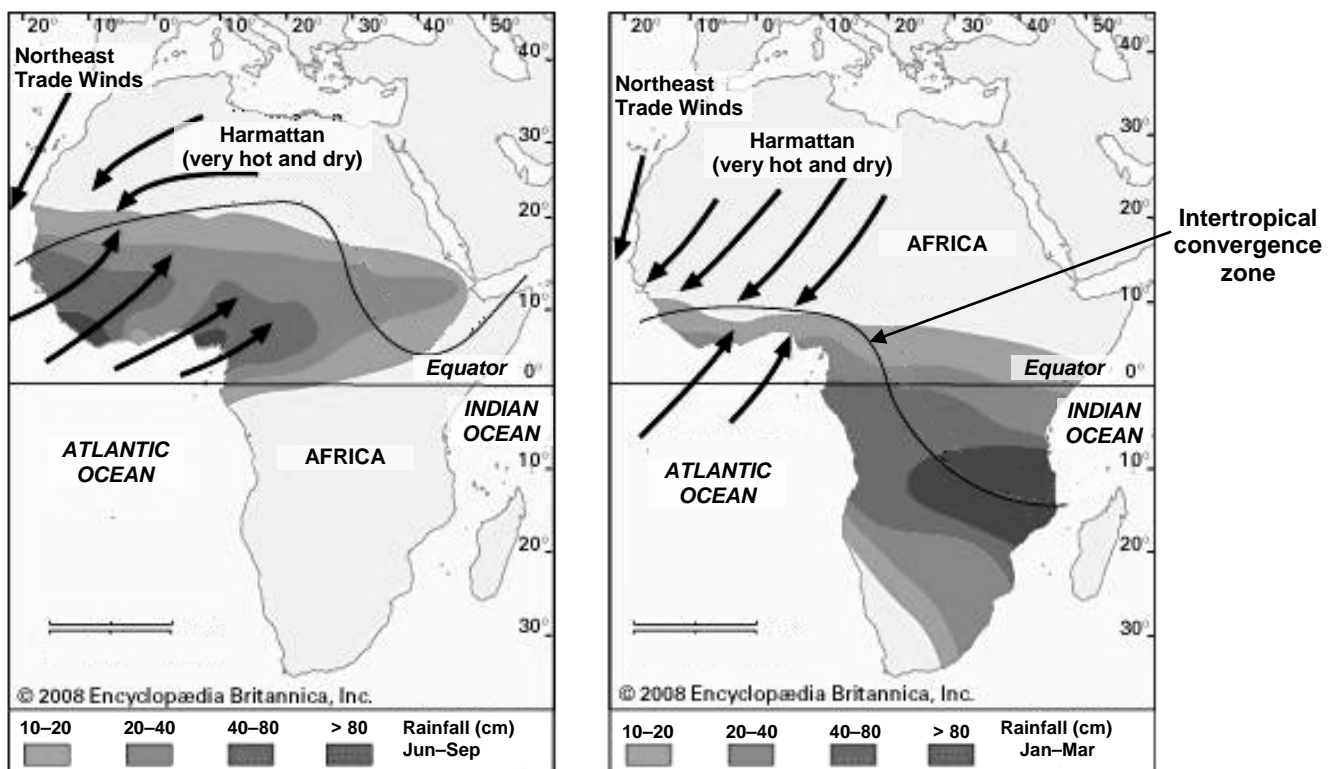
This annexure consists of 10 pages.

FIGURE 1.2: IGNEOUS LANDFORMS

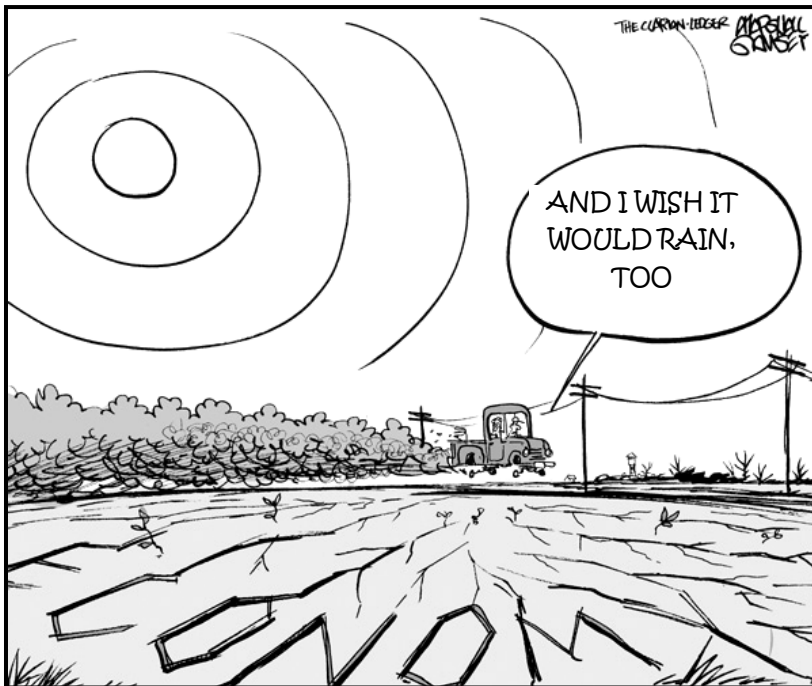


[Source: Google Image]

FIGURE 1.3: MONSOON WINDS IN WEST AFRICA



[Source: Media-3.web.com]

FIGURE 1.4: DROUGHT

[Source: blogs.clarionledger.com]

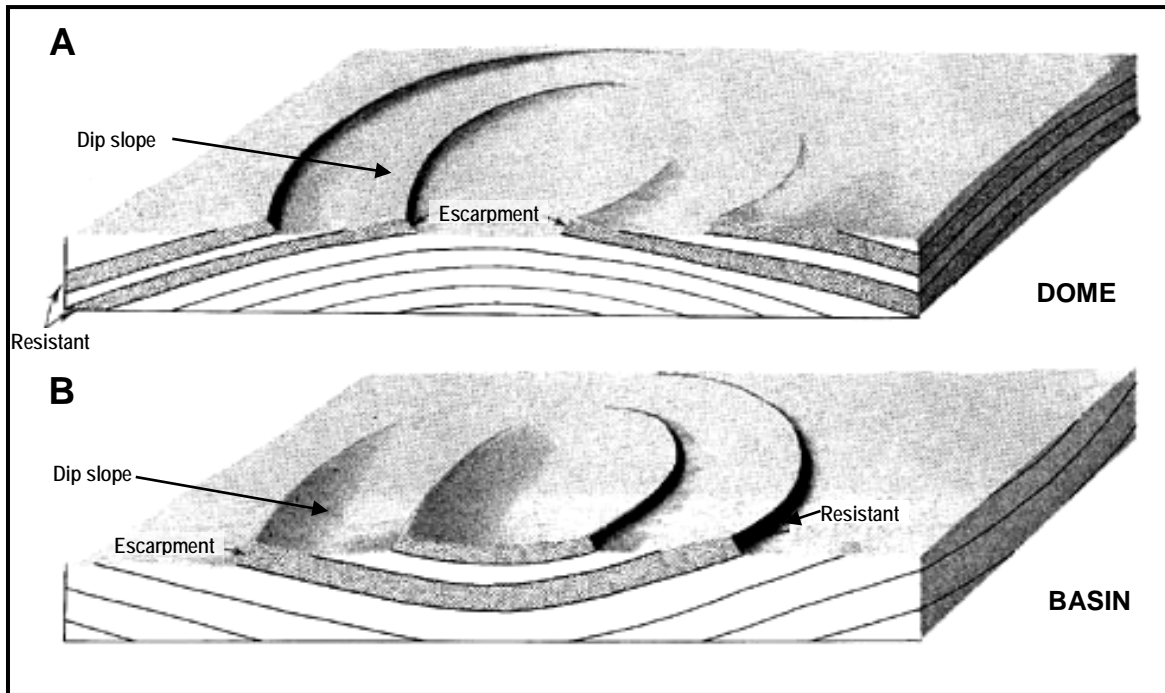
FIGURE 1.5: LANDSLIDES

The 2010 Uganda landslide occurred in the district of Bududa in eastern Uganda on 1 March 2010. The landslide was triggered by heavy rain between 12:00 and 19:00 that day. At least 100 people are believed to have been killed.

The landslide struck villages on the slopes of Mount Elgon, including Nameti, Kubewo, and Nankobe. Eighty-five homes were destroyed in Nameti alone. Many areas in the affected villages were buried by the landslides, including houses, markets and a church. Many roads were also blocked. Officials and aid workers were worried that further landslides could occur, as heavy rain continued to fall in the region.

[Source: Wikipedia.org]

FIGURE 1.6: CUESTAS



[Source: geo.msu.edu]

FIGURE 2.1: SEASONAL TEMPERATURE CHANGES

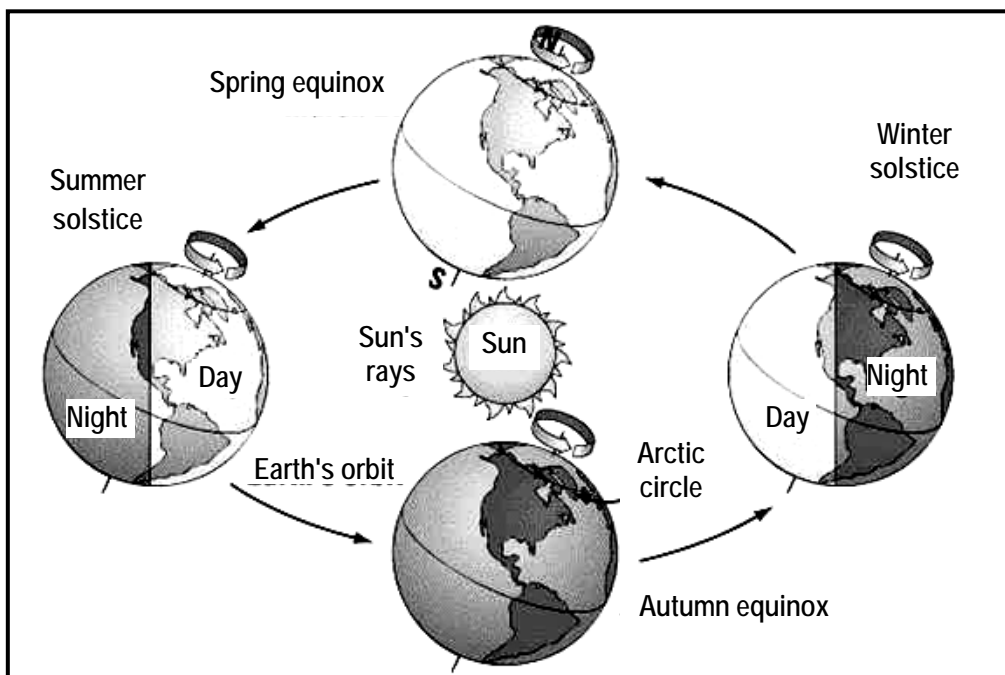
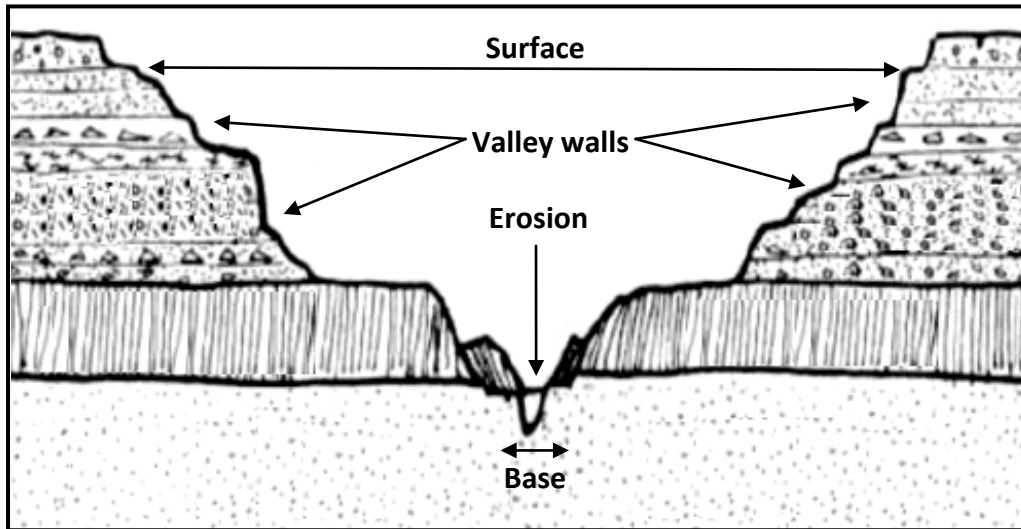


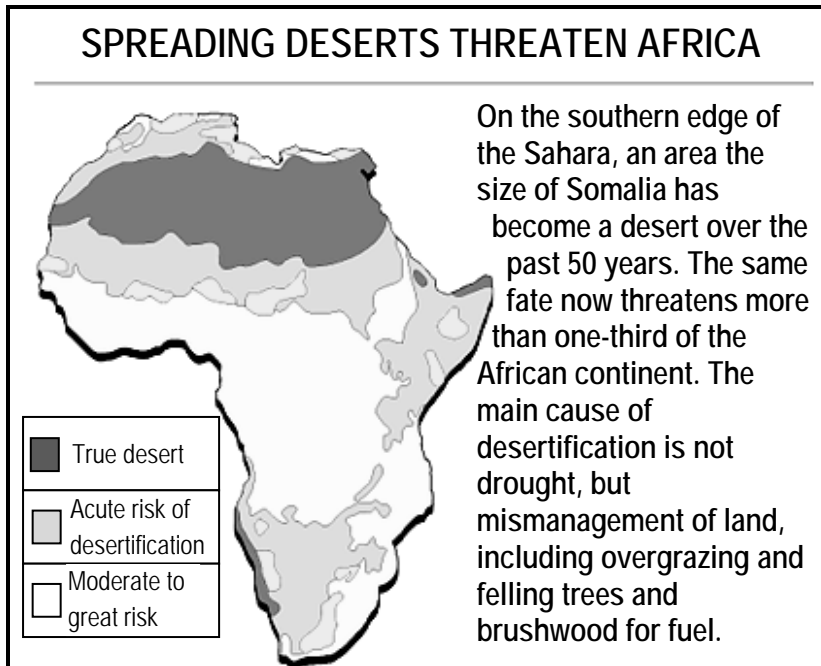
FIGURE 2.2: CANYON LANDSCAPE**FIGURE 2.3: THE LINK BETWEEN EL NIÑO AND THE SINKING OF THE TITANIC**

The RMS Titanic set sail on 10 April 1912 on her first voyage from Southampton to New York. The ship collided with an iceberg in the North Atlantic on 15 April 1912 and sunk, resulting in the loss of 1 522 lives. Lon S Safko, a meteorologist, recognised a direct correlation between the current warming trends experienced in the air and sea surface temperatures of the North Atlantic, and the melting of the Arctic's icebergs which break off and float southward into the cross-Atlantic shipping channels.

Research revealed that the North Atlantic experienced an El Niño event during the winter of 1911/1912 resulting in water temperatures as much as 5 °C warmer than normal. Safko believes that this could, in part, explain Captain Edward J Smith's ignorance that fateful evening, as the previous 14 years of commanding trans-Atlantic vessels had shown much dryer, colder, ice-free, non-El Niño conditions.

[Source: Historic/El Niño Information: http://www.ocregister.com/news/1997/el_nino/history/history.html]

FIGURE 2.4: DESERTIFICATION IN AFRICA



[Source: *The Conservation and Rehabilitation of African Lands (FAO 1990)*]

FIGURE 2.5: LANDFORMS RESULTING FROM IGNEOUS FORMATIONS

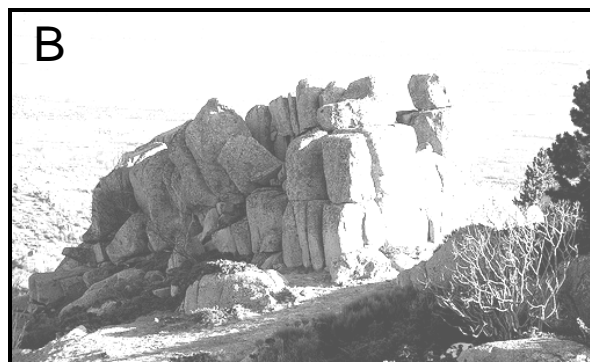
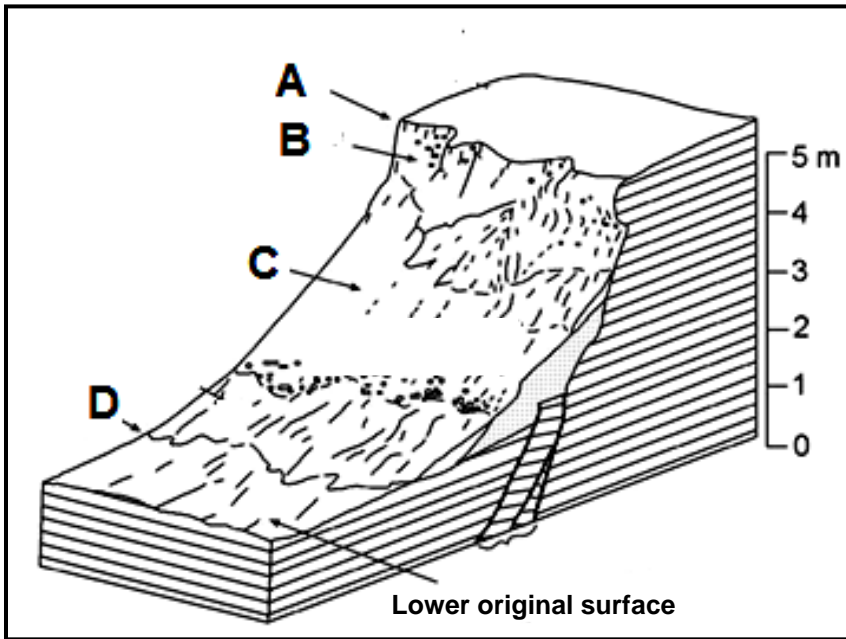


FIGURE 2.6: SLOPE ELEMENTS/FORMS



[Source: Google Image]

FIGURE 3.3: SOIL EROSION

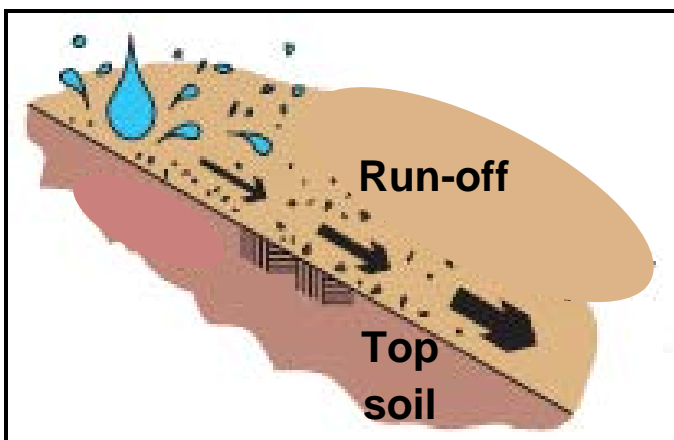


FIGURE 3.5: DROUGHT IN AFRICA

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 3.6: TRADE



[Source: cooperativeindividualism.com]

FIGURE 4.3: NUCLEAR POWER IN SOUTH AFRICA

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?

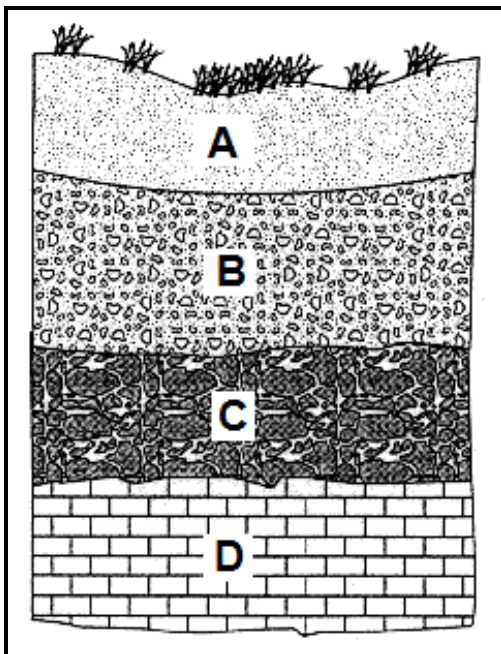
The IRP2010 plan – released in April 2010 – called for the construction of six nuclear stations generating 9,6 GW of energy by 2030, with a new 1 600 MW nuclear power plant to be built every year between 2023 and 2026, and the last two in 2028 and 2029.

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 4.4: SOIL PROFILE



[Source: Google Search]

FIGURE 4.5: GLOBALISATION

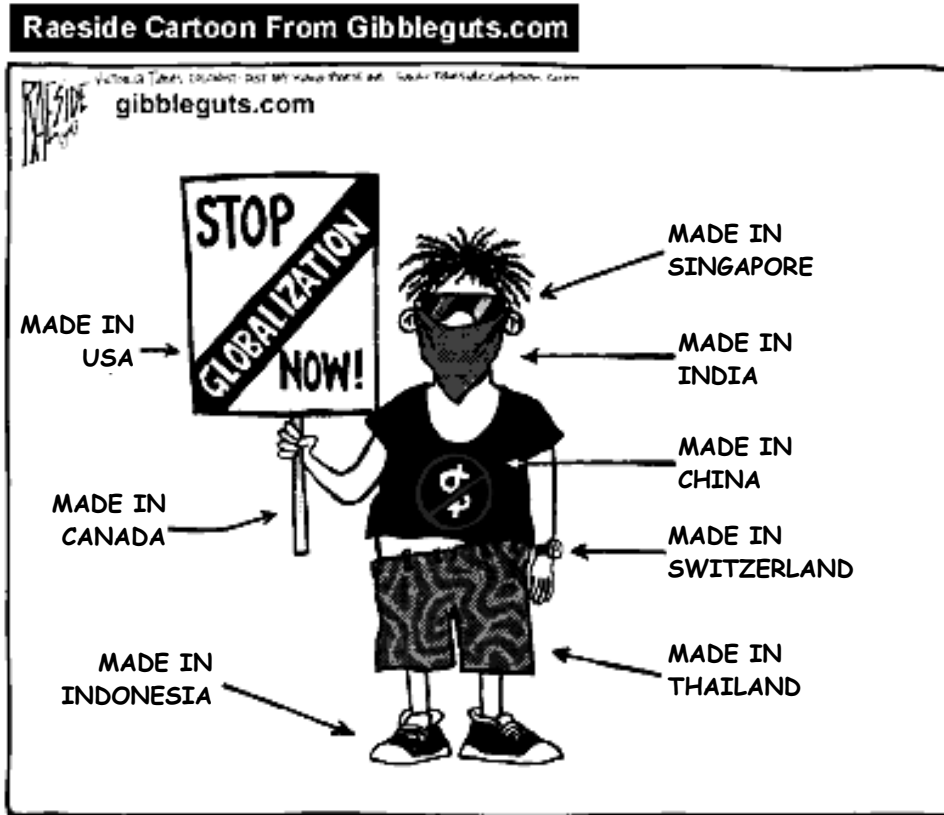


FIGURE 4.6: GENDER INEQUALITY

Participation in rural wage employment, by sex (%)

