GRADE 11 GEOGRAPHY YEAR END EXAMINATION PAPER 1

Total Marks: 225

Time: 3 hours

Instructions:

- Write in blue pen only
- This paper consists of two (2) sections and four (4) questions.
- You need to answer any **three** (3) of these questions.
- Leave a line between answers
- Draw a right-hand margin for marking purposes
- Rule off at the end of each question.
- Where possible, support your answer with labelled diagrams
- Mark allocations:
    - If marks are given as follows – (3x2) = 6, it means that three (3) facts should be given for two (2) marks each
- Essay-type questions should be answered in paragraph form in full sentences. Answers given in list form will result in marks being deducted.
- All diagrams are included in the addendum starting on page 10.

GRADE 11 GEOGRAPHY YEAR END EXAMINATION PAPER 1

SECTION A: ATMOSPHERE AND GEOMORPHOLOGY

QUESTION 1

1.1 State whether the following statements are TRUE or FALSE. Write only true or false next to the question number.

1.1.1 The southwest monsoon winds bring heavy rains to India during winter.

1.1.2 The Tropical Rainforest biome is cool throughout the year with low rainfall.

1.1.3 Oceans have a moderating effect on the coastline past which they flow.

1.1.4 A sea breeze is a wind that blows toward the land during the night.

1.1.5 Erosion is the process of breaking down rock material on the Earth's surface.

1.1.6 Sheetwash refers to surface erosion caused by runoff resulting from heavy rainfall.

1.1.7 Horizontal lava flow results in the formation of the landform known as a basaltic plateau.

1.1.8 The gentle concave slope at the base of a hill is the pediplain.

1.1.9 A hogs back is a ridge formed on inclined strata.

1.1.10 A sill is a horizontal igneous intrusion. (10x1) (10)

1.2 Provide the correct term for each of the following descriptions:

1.2.1 The force causing planetary winds to deflect to the left or right.

1.2.2 The largest intrusive volcano.

1.2.3 Winds that blow between 5^{o} and 30^{o} north and south.

1.2.4 The upper level of the zone of groundwater saturation in permeable rocks.

1.2.5 Rock formed from the deposition and consolidation of sediments on the ocean floor. (5x1) (5)

1.3 Refer to FIGURE 1.3 in the addendum to answer the following questions:

1.3.1 What type of cell is "A"? (1x1) (1)

1.3.2 Give one (1) reason for your answer to question 1.3.1. (1x2) (2)

1.3.3 Identify the climatological feature marked "J" on the map. (1x1) (1)

1.3.4 What season is depicted on the map? Provide one (1) piece of evidence to support your answer. (2x1) (2)

1.3.5 Describe the weather experienced at the point marked by the arrow. (6x1) (6)

1.3.6 Explain why there is so much cloud cover on the east coast and little or no cloud cover on the west coast of South Africa. (6x1) (6)

1.4 Refer to FIGURE 1.4, showing global air circulation, to answer the following questions:

1.4.1 Name the planetary winds labelled **A**, **B** and **C**. (3x1) (3)
1.4.2 Name the cells of vertical air movement labelled **D**, **E** and **F**. (3x1) (3)
1.4.3 Explain why the planetary winds do not blow directly north or south. (3x1) (3)
1.4.4 Name the area marked **G**. (1x1) (1)
1.4.5 Explain why this area shifts position in the different seasons. (2x1) (2)

1.5 Refer to the landscape in FIGURE 1.5 and the answer the following questions:

1.5.1 Identify landforms **A**, **B** and **C**. (3x1) (3)
1.5.2 Describe the formation of landform **C**, with reference to **A** and **B**. (4x1) (4)
1.5.3 What type of landscape is this? (1x1) (1)
1.5.4 Describe the probable rainfall of the region. (1x2) (2)
1.5.5 Discuss two reasons why landform **E** is not suitable for human activities. (2x2) (4)
1.5.6 Provide one suitable activity for landform **A.** (1x1) (1)
1.5.7 Choose the correct label for slope element **D** from the list below: (1x1) (1)

Crest; Free face; Talus; Pediment

1.6 Refer to the causes of mass movement in FIGURE 1.6 and answer the following questions:
1.6.1 Explain the process of mass movements. (1x2) (2)
1.6.2 Refer to the diagram. Choose two (2) human factors that threaten the stability of a slope and explain how each factor threatens the slope's stability. (2x2) (4)
1.6.3 Describe the impact of mass movement on humans. (2x2) (4)
1.6.4 What strategies can be put in place to minimise or prevent mass movement? (2x2) (4)

[75]

QUESTION 2

2.1 Select one term from the brackets to complete the following statements. Write only the term next to the question number.

2.1.1 (Global warming / climate change) refers to the long-term and widespread change in global weather patterns.

2.1.2 (Heat-wave / drought) is a short period of very hot weather.

2.1.3 Clear skies are associated with air (subsidence/convergence).

2.1.4 (Weather / climate) describes the day-to-day conditions experienced in a small area.

2.1.5 A (biome / green zone) is a region that contains specific plants and animals suited to the area.

2.1.6 (Desertification / degradation) refers to the loss of soil fertility and plants in arid areas.

2.1.7 Mudslides are caused by (heavy rainfall / gravity).

2.1.8 The (talus / scarp) slope is where weathered material settles and collects.

2.1.9 A (dyke / sill) is a vertical, column-like igneous intrusion.

2.1.10 A (knickpoint also called knickpoint / waterfall) occurs where there is a sudden drop in gradient due to erosion of soft rock which reveals a hard ledge. (10x1) (10)

2.2 Choose the words from the list below and place them under the correct heading to describe each type of landscape. Some words may be left out and some may be used for both landscapes. Redraw the table in your answer book.

Arid area; smooth slopes; rugged landscape; regular rainfall; horizontal strata; inclined strata; waterfalls

Hilly Landscape	Badlands

(5x1) (5)

2.3 Refer to FIGURE 2.3 to answer the following questions.

2.3.1 State the pressure (high or low) at 0^{o}, 30^{o} and 60^{o}. (3x1) (3)

2.3.2 Will the planetary winds that blow between 30^{o} and 60^{o} blow towards 30^{o} or 60^{o}? (1x1) (1)

2.3.3 Give a reason for your answer to 2.3.2. (2x1) (2)

2.3.4 In a short paragraph (no more than six (6) lines) explain how the winds mentioned in 2.3.2 influence the weather in Cape Town in winter. (3x2) (6)

2.4 Refer to the case study FIGURE 2.4 and then answer the following questions.

2.4.1	Explain the term *drought.*	(1x2)	(2)
2.4.2	Identify two (2) pieces of evidence in the extract to suggest that the countries in the Horn of Africa experience a socio-economic drought.	(2x2)	(4)
2.4.3	Describe three (3) reasons people in Africa are more vulnerable to the effects of droughts than more developed countries.	(3x2)	(6)
2.4.4	Formulate three (3) solutions for these countries to reduce the effects of droughts.	(3x2)	(6)

2.5 Refer to FIGURE 2.5 and answer the following questions:

2.5.1	Identify landforms **A** and **B**.	(2x1)	(2)
2.5.2	Name the igneous intrusion from which **A** and **B** have formed.	(1x2)	(2)
2.5.3	Briefly explain, with the aid of a diagram, how landform **A** was formed.	(3x2)	(6)
2.5.4	Explain the value of landform **B** for human activity.	(1x2)	(2)
2.5.5	What kind of mass movement could occur on landform **B**?	(1x2)	(2)

2.6 Refer to FIGURE 2.6 and answer the following questions:

2.6.1	Which diagram, **A** or **B**, shows a cuesta?	(1x1)	(1)
2.6.2	Explain your answer to question 2.6.1.	(1x2)	(2)
2.6.3	Name the slope marked **2**.	(1x1)	(1)
2.6.4	Provide evidence from the image to explain your answer to question 2.6.3	(1x2)	(2)
2.6.5	Redraw slope **1** and label the following slope elements: Talus; pediment; knickpoint; crest	(4x1)	(4)
2.6.6	Write a short paragraph (no more than six (6) lines) in which you explain the significance of slope number **2** for human activity.	(3x2)	(6)

[75]

SECTION B: DEVELOPMENT GEOGRAPHY, RESOURCES AND SUSTAINABILITY

QUESTION 3

3.1 Choose the correct word(s) from the list below to complete the statements. Write only the word(s) with the question number.

Land degradation; solar energy; carbon dioxide; nuclear energy; coal; global warming; acid rain; sustainable energy; non-conventional energy; topography; humus; carbon footprint; water; renewable resources; fair trade; free trade; quotas; subsidies; GDP; GNP; fossil fuels; biomass; human development index; demographic indicators; import; export; trade surplus; trade deficit; support; exploit

3.1.1 ... occurs when nitric oxide and sulphur dioxide in the atmosphere dissolve in water vapour and become acid.

3.1.2 Koeberg in the Western Cape is a source of...

3.1.3 Rich, fertile material made from decomposed organic material is called...

3.1.4 Our ... is a measure of all the carbon we produce.

3.1.5 Oil, coal and natural gas are also called...

3.1.6 When human activities damage and deteriorate land, it is referred to as...

3.1.7 ... means that countries do not place restrictions on the prices or volumes of imports or exports.

3.1.8 ... shows the total value of all goods and services produced by a country in a year.

3.1.9 ... can be used to compare the development levels of different countries.

3.1.10 When a country spends more money on imports than it earns from exports, it is called ...

3.1.11 LEDCs need to ... technological goods.

3.1.12 Restrictions placed on the number, weight or volumes of imported items are import...

3.1.13 Globalisation has made it possible for large global companies to ... workers from less economically developed countries.

3.1.14 ... is a renewable energy source developed from organic matter.

3.1.15 Most of South Africa's energy comes from ... power. (15x1) (15)

3.2 Study the cartoon in FIGURE 3.2 and answer the following questions.

3.2.1 What can you conclude from the cartoon about development across the world? (1x2) (2)

3.2.2 Name one factor of appropriate development in the cartoon. (1x2) (2)

3.2.3 Which panel shows a country with a focus on economic development? Motivate your answer. (1 + 2) (3)

3.2.4 Which panel represents a less economically developed country and which shows a more economically developed country? Motivate your choices. (4x1) (4)

3.2.5 Choose from the following list the terms that best describe the country in frame **1** and its population:

High LE; Low BR; High BR; Gini co-efficient of 0,16; Gini co-efficient of 0,58; HDI of 0,98; HDI of 0,43; High literacy rate; Low literacy rate; High IMR; Low IMR

(5x1) (5)

3.3 Read the article in FIGURE 3.3 and answer the following questions:

3.3.1 Explain the term *humanitarian aid*. (1x2) (2)

3.3.2 Explain the difference between *development aid* and *bilateral aid*. (2x2) (4)

3.3.3 Name a form of humanitarian aid. (1x2) (2)

3.3.4 Do you think that humanitarian aid should be granted to assist people in LEDCs who suffer the effects of drought? Include a discussion of the advantages or disadvantages of providing humanitarian aid for both the LEDC and the MEDC. (6x1) (6)

3.4 Study the information passage in FIGURE 3.4 and answer the following questions.

3.4.1 List two (2) natural resources <u>not mentioned</u> in the passage. (2x1) (2)

3.4.2 Discuss two reasons why the world's forests are under threat. (2x2) (2)

3.4.3 Describe two effects that deforestation has on the environment. (2x2) (4)

3.4.4 Why are agriculture and commercial farming threatening to the sustainability of the rainforests? (1x2) (2)

3.4.5 It can be explained that fuel wood is no longer a renewable resource. Explain why. (1x2) (2)

3.5 Study the pie chart in FIGURE 3.5 and answer the following questions:

3.5.1 What is South Africa's primary source of energy? (1x1) (1)

3.5.2 Explain why South Africa relies so heavily on this energy source? (2x2) (4)

3.5.3 Explain the term *renewable energy*. (1x1) (1)

3.5.4 Provide two (2) TWO examples of renewable energy sources that are being used in South Africa. (2x1) (2)

3.5.5 Explain why renewable energy is also referred to as "clean energy". (1x2) (2)

3.5.6 "Renewable energy sources are less reliable than other energy sources such as coal or nuclear power." Evaluate this statement in a paragraph of no more than six (6) lines. (3x2) (6)

[75]

QUESTION 4

4.1 Different options are given as possible answers to the following questions. Write only the letter of your choice next to the question number.

4.1.1 Machines, tools and infrastructure are examples of ... resources

A Human
B Manufactured
C Financial

4.1.2 The over-consumption of natural resources for the purpose of economic development is referred to as...

A Overuse
B Exploitation
C Depletion

4.1.3 Which of the following are non-renewable energy resources?

A Thermal power and hydro-electricity
B Solar power and oil
C Coal and natural gas

4.1.4 Community-based development involves...

A Bottom-up development
B New government policy
C Charity fundraising

4.1.5 Which of the following does not affect development?

A Access to resources and birth rate
B Energy usage and trade imbalances
C Neither of the above (5x1) (5)

4.2 Choose a term from column B to match the description on column A. Write only the question number and letter in your answer book.

4.2.1	The total value of all goods and services produced in a country in a year	A.	Economic development
4.2.2	Efforts to improve the economic well-being of a country	B.	Gross domestic Product
4.2.3	Conversion of one currency to another	C.	Gini Coefficient
4.2.4	Measuring the level of inequality in a country	D.	Foreign exchange
4.2.5	The difference in total value between payments into and out of a country over a set period	E.	Balance of trade
		F.	Balance of payments

(5x2) (10)

4.3 Study the artwork, FIGURE 4.3, that shows a less developed country before and after globalisation and then answer the following questions:

4.3.1	Define "globalisation".	(1x2)	(2)
4.3.2	Discuss one change from frame 1 to frame 2 that shows globalisation has taken place.	(1x2)	(2)
4.3.3	Which of the eight Millennium Goals can be seen in this artwork?	(1x2)	(2)
4.3.4	Complete the sentence by filling in the words: "There has been a shift in focus from mainly (A)... activities in frame 1 to (B)... activities in frame 2."	(2x1)	(2)
4.3.5	The factory in the image brings money to the area through producing goods for the international market. What type of development will this lead to?	(1x2)	(2)
4.3.6	In a short paragraph (of no more than six (6) lines) discuss the potential positive and negative effects of globalisation on LEDCs.	(6x1)	(6)

4.4 Refer to the bar graph, FIGURE 4.4, and answer the following questions:

4.4.1	Give a definition for the term "gender inequality".	(1x2)	(2)
4.4.2	Which country in the bar graph shows the least gender inequality?	(1x2)	(2)
4.4.3	Provide one example of gender inequality experienced in LEDCs.	(1x2)	(2)
4.4.4	Gender inequality is far less prominent in MEDCs. Discuss two reasons why LEDCs have more gender inequality issues.	(2x2)	(4)
4.4.5	Develop two measures that can be put in place to address the issue of gender inequality in developing countries.	(2x2)	(4)

4.5 Study FIGURE 4.5 which depicts two cattle farms (A and B) in the same area. Both farms allow the cattle to roam in grass fields. Answer the following questions.

4.5.1	Define the term "soil erosion".	(1x2)	(2)
4.5.2	Farmer **B** is experiencing soil erosion and cannot understand why. Suggest three reasons for this, using evidence from the diagram.	(3x1)	(3)
4.5.3	What is going to happen to farm **B**?	(1x1)	(1)
4.5.4	Identify and describe two measure Farmer A has in place to prevent soil erosion.	(2x2)	(4)
4.5.5	Write a short paragraph (not more than six lines) to describe the impact of soil erosion on humans and the environment.	(6x1)	(6)

4.6 Study FIGURE 4.6, which is a map showing the amount of solar energy received annually in different parts of South Africa, to answer the following questions.

4.6.1	"The Northern Cape is ideally suited for solar parks" Using evidence from the map, explain why this statement is true.	(1x2)	(2)
4.6.2	Suggest two other reasons, not visible on the map, why high-production solar farms could be built in the Northern Cape.	(2x2)	(4)
4.6.3	Describe two advantages of solar energy for the environment of South Africa.	(2x2)	(4)
4.6.4	Wind power is another form of renewable energy that could be harnessed in South Africa. Suggest, with a reason, where in South Africa this energy could be harnessed successfully.	(1+2)	(3)
4.6.5	Name one form of renewable energy, other than solar and wind power.	(1x1)	(1)

[75]

Addendum

FIGURE 1.3

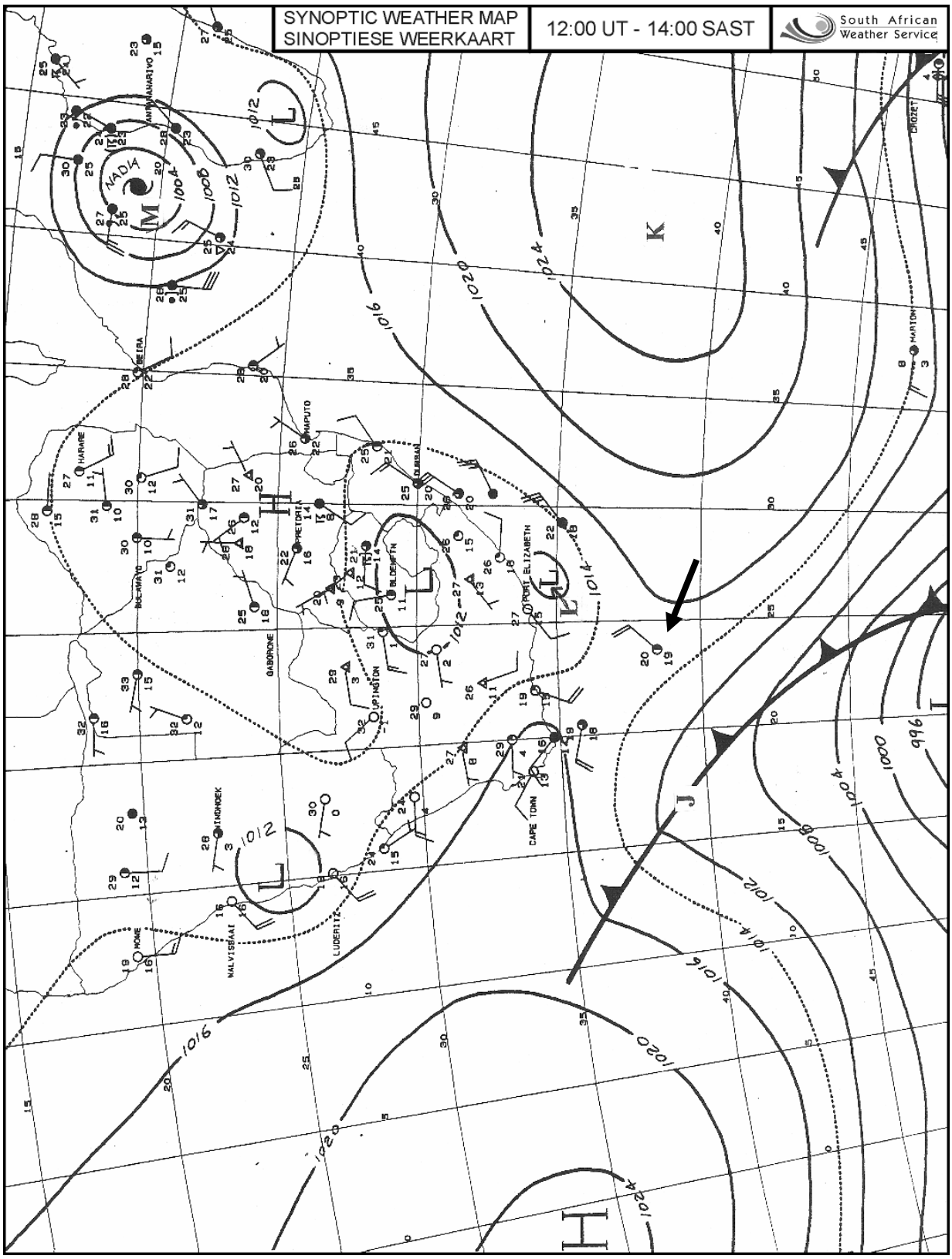

FIGURE 1.4

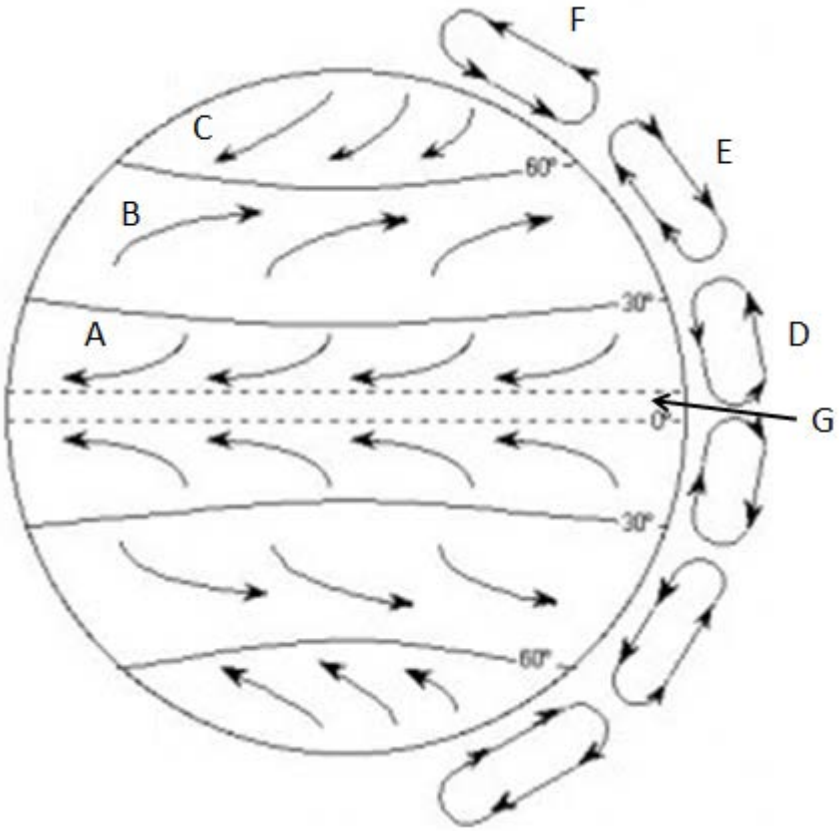

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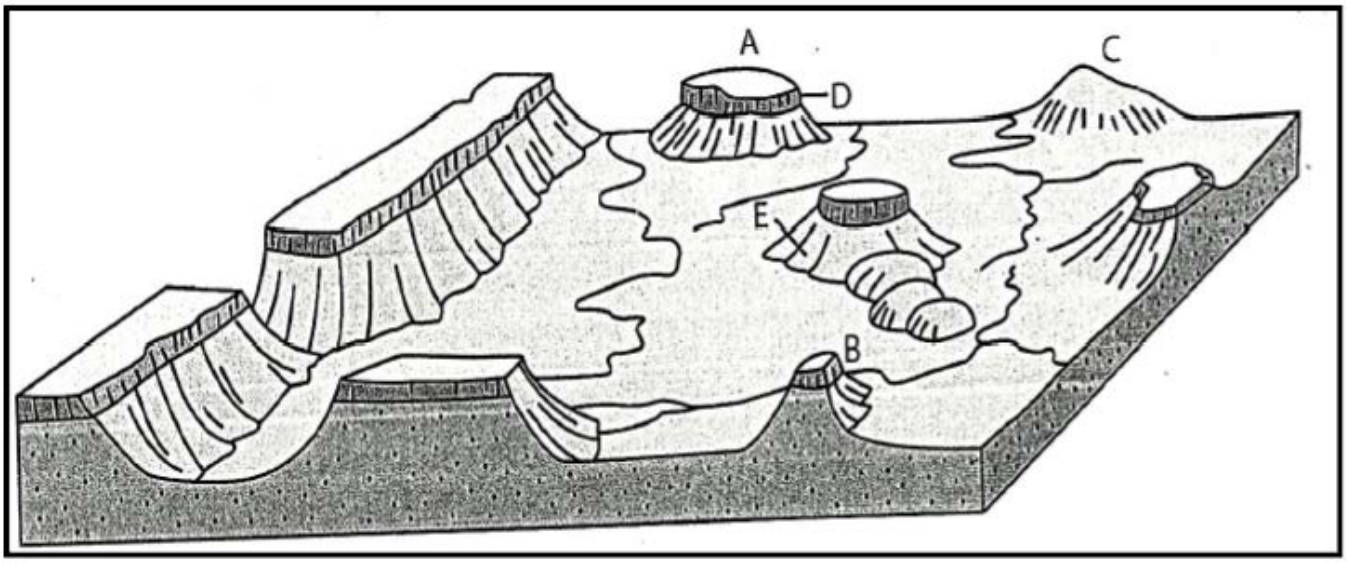
FIGURE 1.5



Source: Eastern Cape Grade 11 Geography Exam November 2013
http://www.ecexams.co.za/2013_November_Gr_11_Exams.htm

FIGURE 1.6

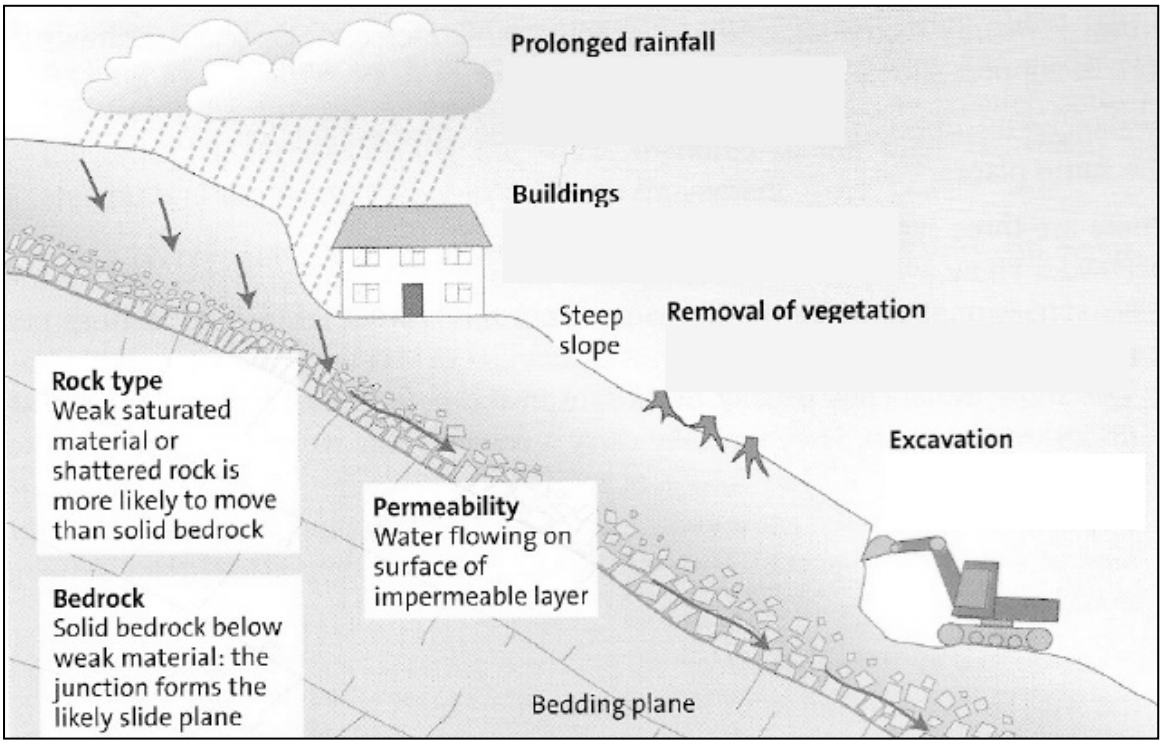


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FIGURE 2.3

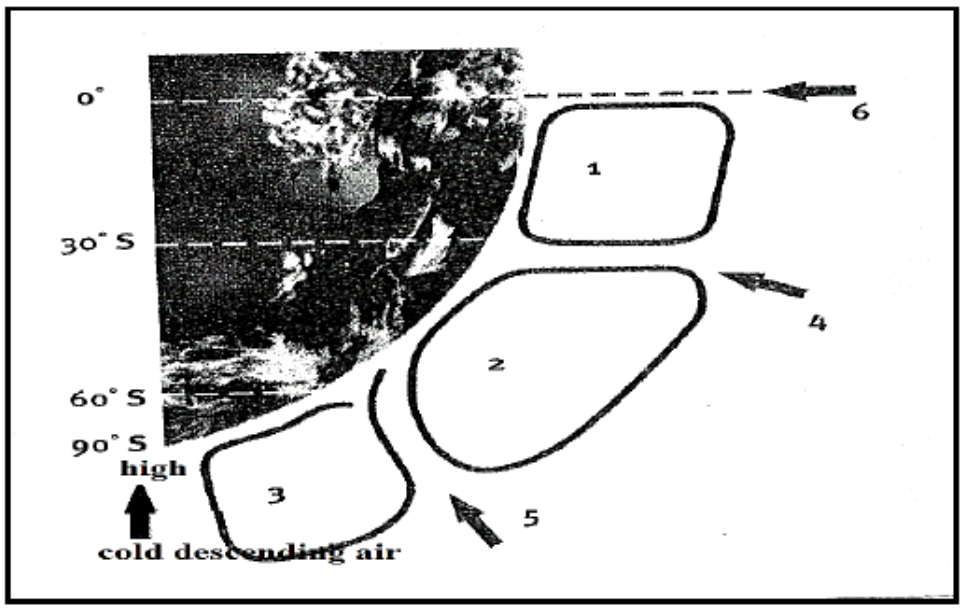

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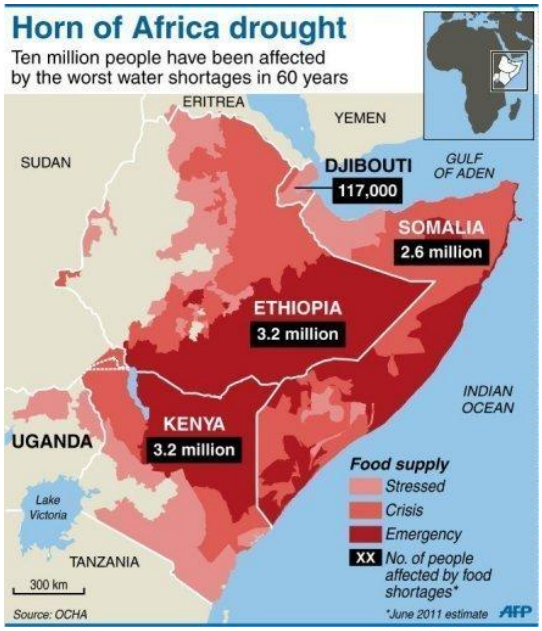
FIGURE 2.4



Between July 2011 and mid-2012, a severe drought affected the entire East Africa region. Said to be "the worst in 60 years", the drought caused a severe food crisis across Somalia, Djibouti, Ethiopia and Kenya that threatened the livelihood of 9.5 million people. Many refugees from southern Somalia fled to neighboring Kenya and Ethiopia, where crowded, unsanitary conditions together with severe malnutrition led to a large number of deaths. Other countries in East Africa, including Sudan, South Sudan and parts of Uganda, were also affected by a food crisis.

Some reports of 260 000 deaths from the drought in Somalia alone between 2011–2012.

Staple food (vegetables, grains & seeds) prices were at 68% over the five-year average, including increases of up to 240% in southern Somalia, 117% in south-eastern Ethiopia, and 58% in northern Kenya.

The World Food Programme said that it expected 12 million people across the Horn of Africa region to need food aid, with 2.8 million in southern Somalia alone, which was the most affected area.

Adapted from: [https://www.google.co.za/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0ahUKEwjo14yi753XAhUqDMAKHQeuCCwQFggpMAA&url=http%3A%2F%2Fwww.geographypods.com%2Fuploads%2F7%2F6%2F2%2F2%2F7622863%2Fhorn_of_africa_drought_2011.docx&usg=AOvVaw2lxmozFD8MWhpHsjHwy8DJ **]**

FIGURE 2.5

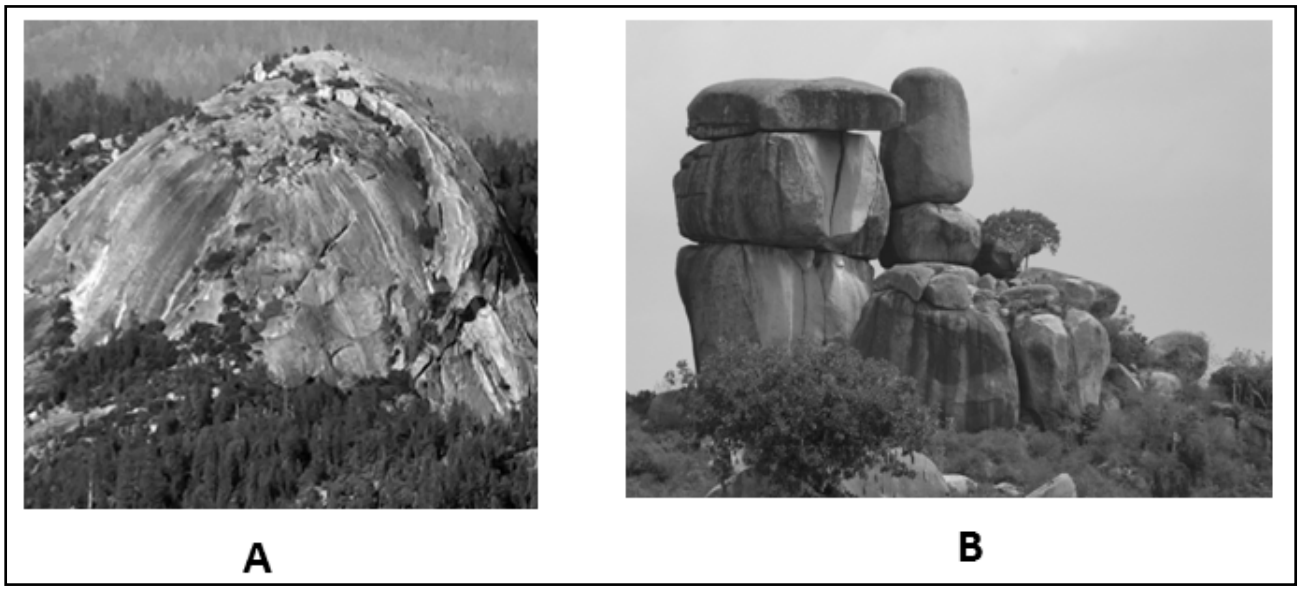


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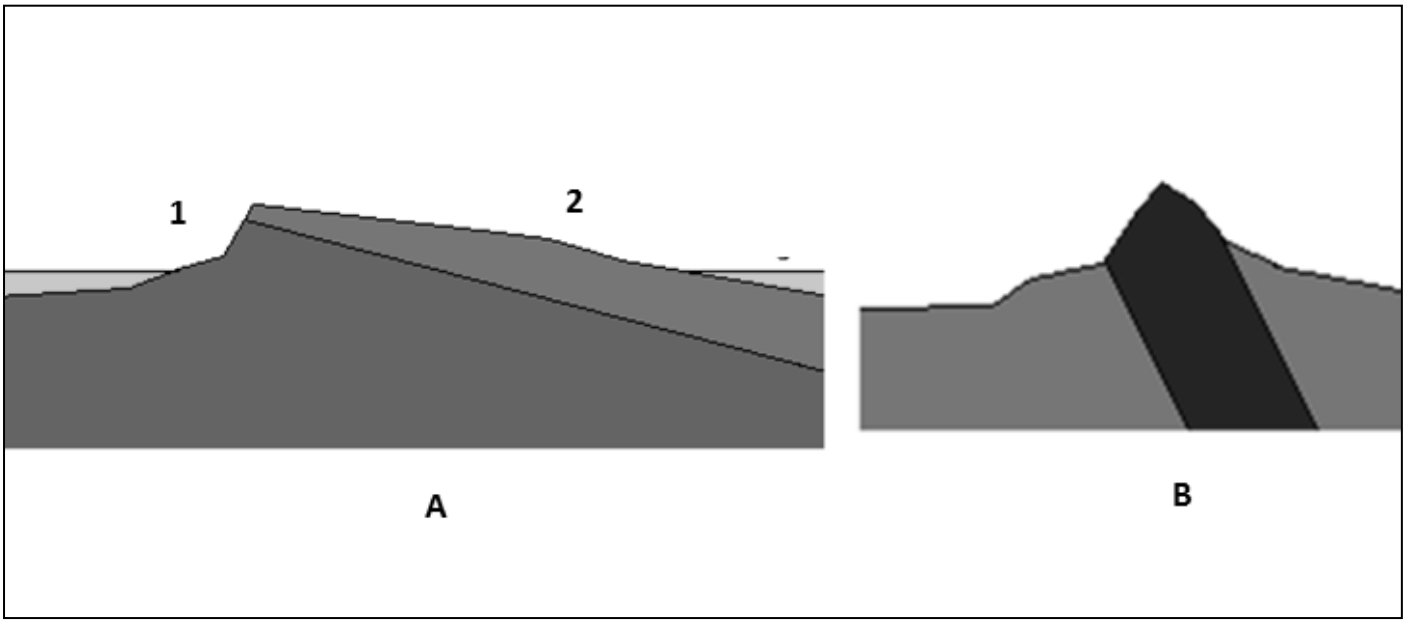
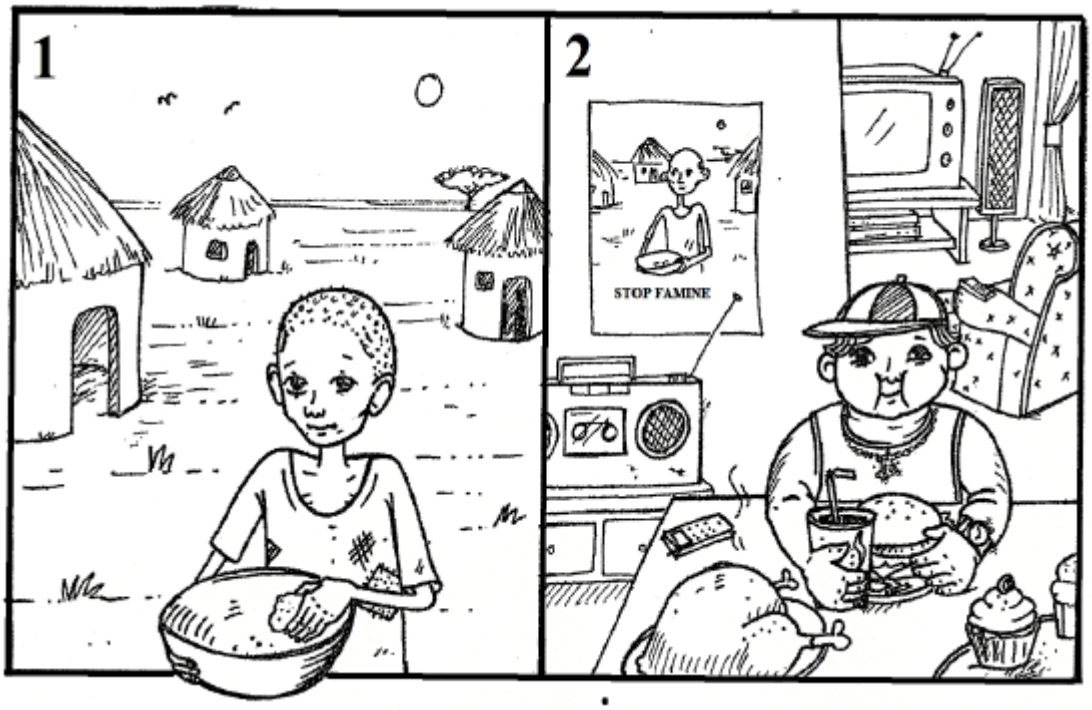
FIGURE 2.6



https://www.uwgb.edu/dutchs/Graphics-Geol/GEOMORPH/SedRockForms.gif

FIGURE 3.2



Source: Eastern Cape Grade 11 Geography Exam November 2013
http://www.ecexams.co.za/2013_November_Gr_11_Exams.htm

FIGURE 3.3

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.

The US government estimates that more than 29 000 children under five died in the space of 90 days from May to July last year. The accompanying destruction of livelihoods, livestock and local market systems affected 13 million people overall. Hundreds of thousands remain at continuing risk of malnutrition.

"Early warning systems in the Sahel region show that overall cereal production is 25% lower than the previous year and food prices are 40% higher than the five-year average. The last food crisis in the region, in 2010, affected 10 million people," the report warns.

Adapted from: [https://www.theguardian.com/world/2012/jan/18/east-africa-drought-disaster-report]

FIGURE 3.4

Our Natural Resources are running out

1. Water
   - Only 2.5% of the world's total water volume is fresh water. Of that 2.5%, 70% is frozen.
   - 70% of the available fresh water that remains is used in agriculture, 20% in industry and only 10% is being used for human consumption.

Causes of depletion: Increased irrigation, increased use in agriculture, roads and infrastructure prevent water seepage in the soil, rising temperatures.

Consequences of depletion: Drinking water shortage. Food Shortage. Famine.

2. Oil

   - Oil accounts for 40% of all energy we use
   - EIA's International Energy Outlook 2013 shows that we have enough oil to last for 25 years.
   - Efforts are underway to develop cheaper and more sustainable energy such as solar power, wind power and other forms of renewable energy that can replace oil and fossil fuel.

Causes of depletion: Industrial boom. Increased population. Wastage.

Consequences of depletion: Less Transportation. Smaller economies. Higher prices. Possibly help push the transition to green energy with reduced CO2 emissions and pollution!

3. Forests

   - An estimated 18 million acres of forests are destroyed each year.
   - Half of the world's forests have been cleared.
   - Deforestation contributes 12 to 17% of global greenhouse gas emissions annually.

Causes of depletion: Urbanization, Fuelwood, Agriculture, Subsistence Farming.

Consequences of depletion: Soil erosion, Global Warming caused by the rise of greenhouse gases- Extinction of species and loss of biodiversity. Flooding and drought.

Adapted from: [https://www.environment.co.za/environmental-issues/natural-resource-depletion.html]

FIGURE 3.5

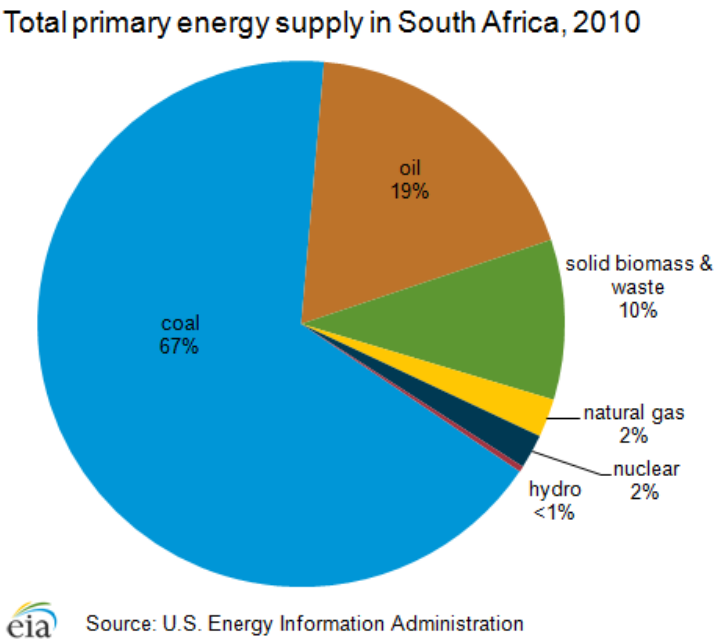
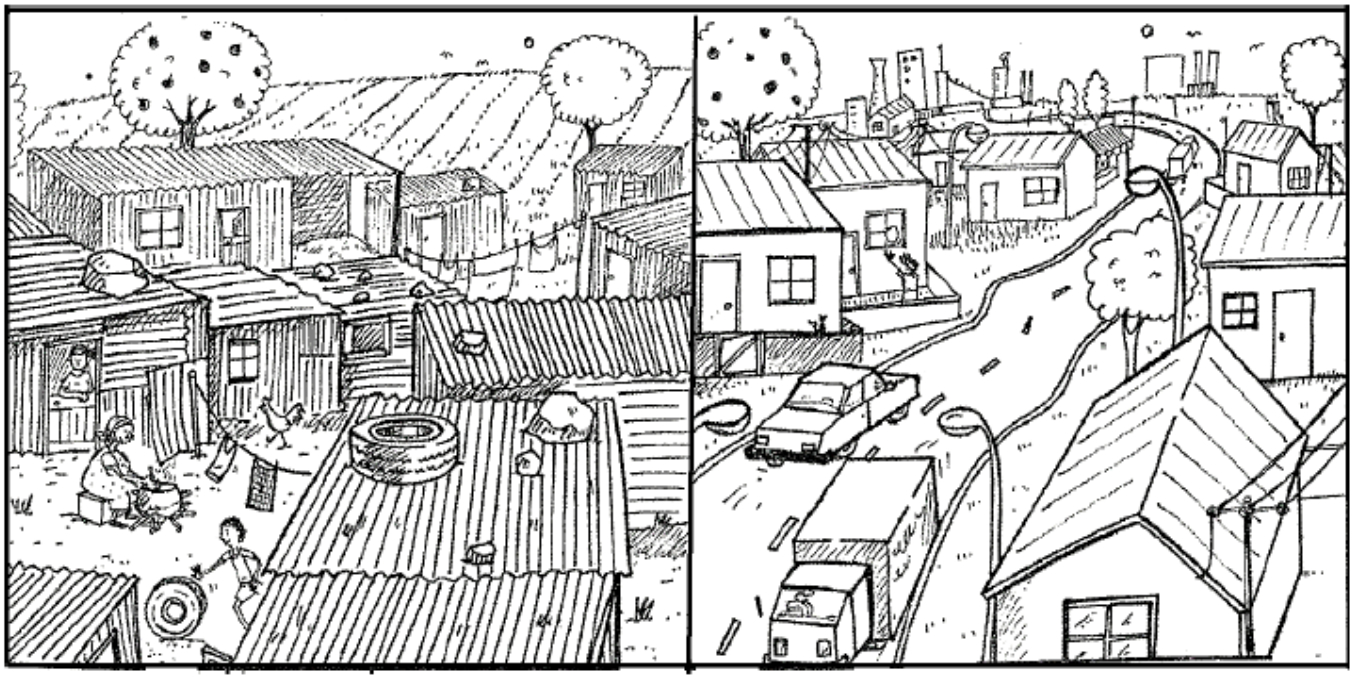


FIGURE 4.3

1 **2**



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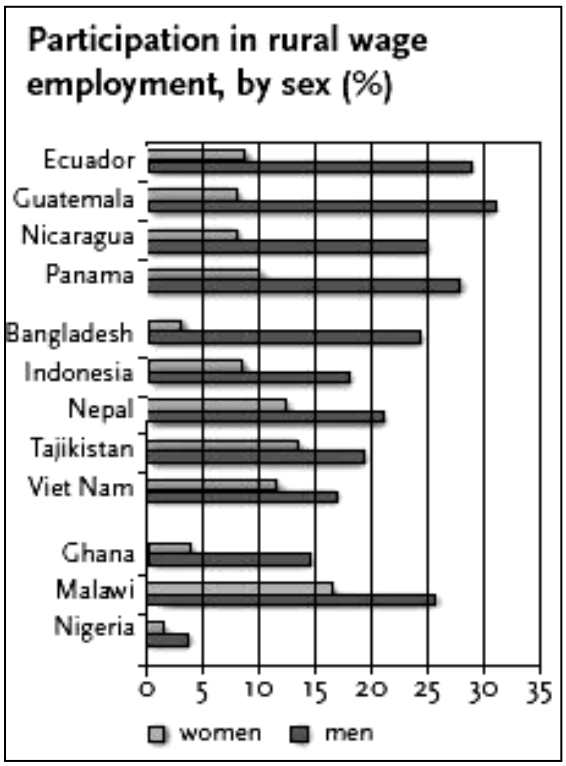
http://www.ecexams.co.za/2013_November_Gr_11_Exams.htm

FIGURE 4.4



http://www.fao.org/fileadmin/templates/gender/images/Why_gender_section/figure6_1_.jpg

FIGURE 4.5

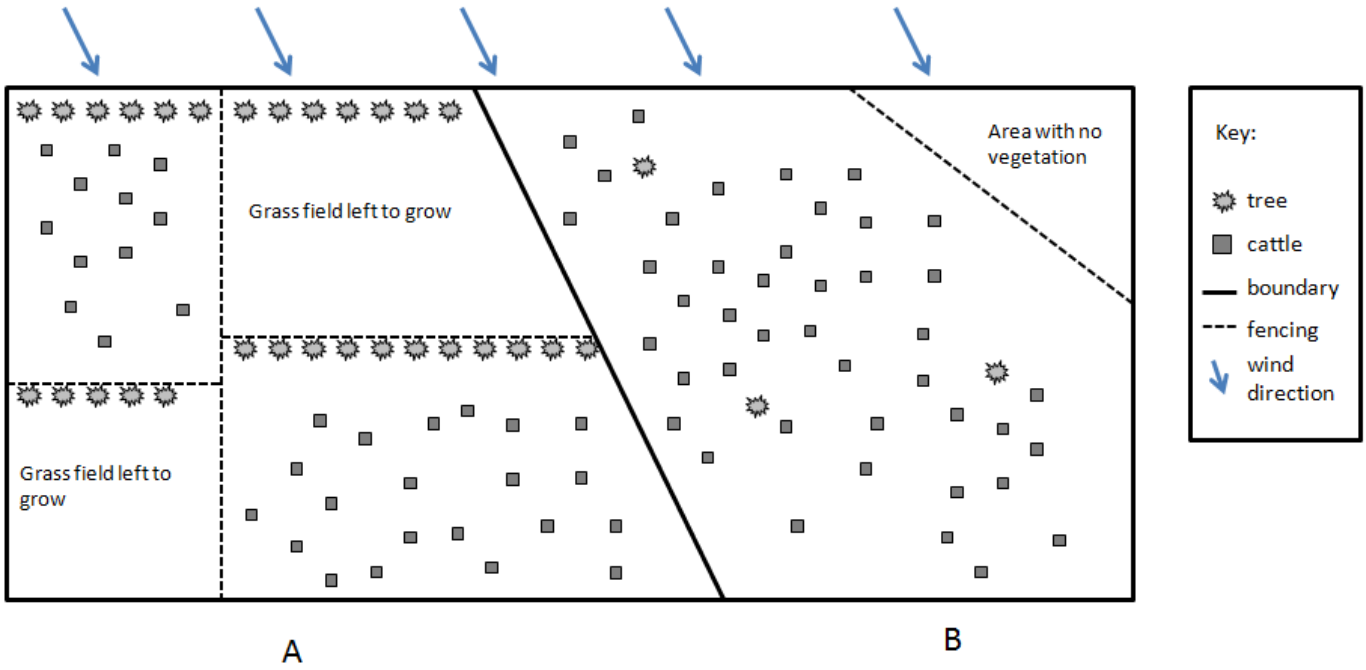
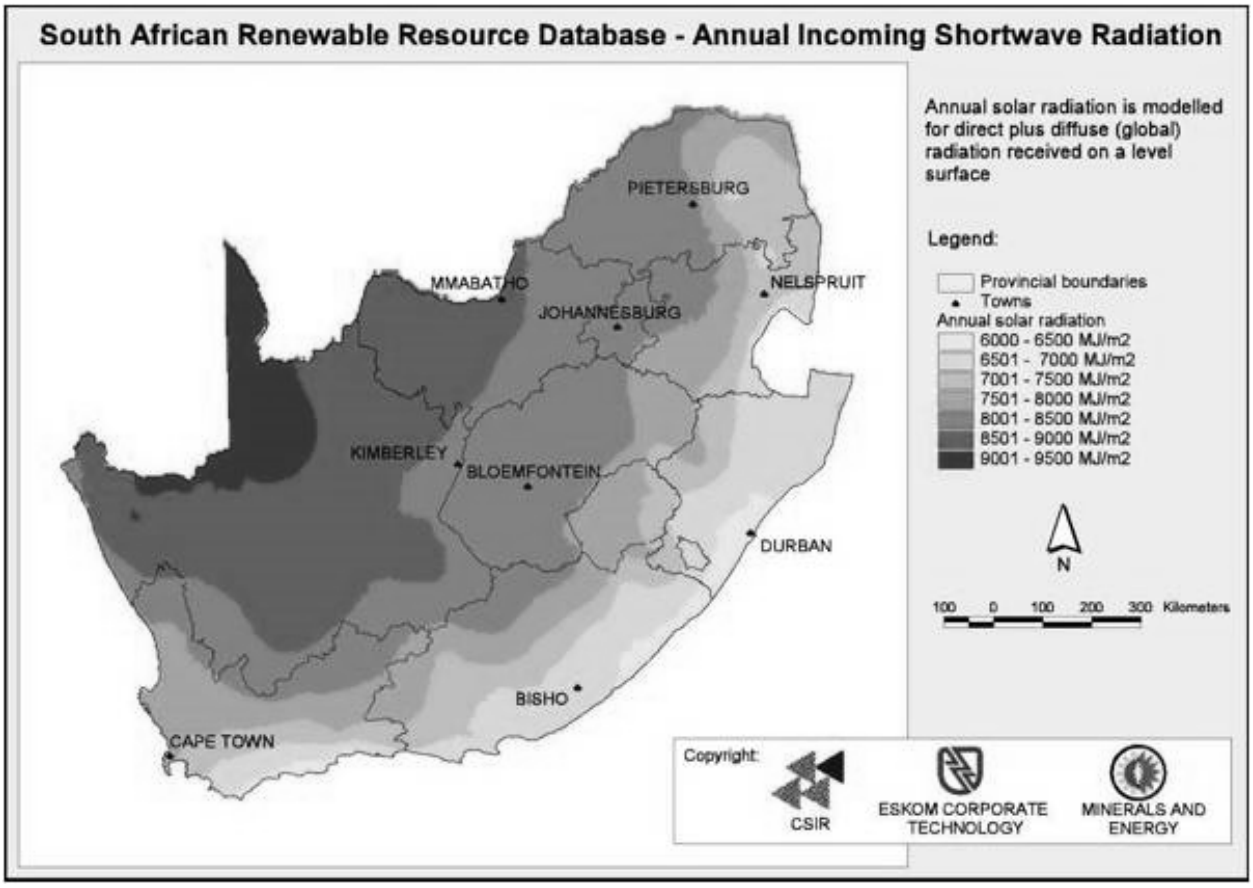


FIGURE 4.6



http://powertime.co.za/online/wp-content/uploads/2015/08/Solar-Radiation-SA-CSIR-copyright.jpg