For performance measurement

ZIMBABWE SCHOOL EXAMINATIONS COUNCIL

GENERAL CERTIFICATE OF EDUCATION
ORDINARY LEVEL

GEOGRAPHY
2248
Past Question Papers and Expected Answers

JUNE 2000 – NOVEMBER 2001

FOREWORD

The need for effective examination study booklets has been a continuing concern in our Zimbabwean schools. Due to a significant number of candidates who fail to come up with five 'O' Levels at one sitting, many teachers are forced to look for appropriate examination guides in order to adequately prepare their candidates for examination. Needless to say the main cause of underachievement as indicated in examination reports points towards failure by candidates to understand and interpret the requirements of the questions. Teachers are handicapped in developing good examination techniques within their candidates as they do not have relevant and viable examination booklets. These examination guides present questions and suggested solutions. The aim of the guides is to acquaint 'O' Level candidates with the structure of the examination, questions and expected solutions. The suggested solutions are meant to develop, within the candidates, effective examination techniques and strategies relevant to the examination. They are in no way meant to be viewed as the only prescription for answering the examination questions but more as an authentic approach to success in examinations by candidates preparing for the Zimbabwean General Certificate of Education (ZGCE) Ordinary Level.

This booklet is part of the second series that cover a number of subjects on offer at our examination centres. The first series was up to the 1998 examinations. We hope that the series will contribute in developing, within our candidates, effective examination techniques in the area of subject mastery, question interpretation and presentation of answers. This service by the Council will benefit all our stakeholders whose main interest is to improve the performance of our candidates in examinations.

E.S. Nhandara
ACTING DIRECTOR - ZIMBABWE SCHOOL EXAMINATIONS COUNCIL

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ZIMBABWE SCHOOL EXAMINATIONS COUNCIL

General Certificate of Education Ordinary Level

GEOGRAPHY 2248/1

PAPER 1 Multiple Choice

Monday 12 JUNE 2000 Afternoon 1 hour 15 minutes

1:50 000 Survey Map is enclosed with this question paper

Additional materials

Multiple choice answer sheet

Soft clean eraser

Soft pencil (type B or HB is recommended)

TIME 1 hour 15 minutes

INSTRUCTIONS TO CANDIDATES

Do not open this booklet until you are told to do so.

Write your name, Centre number and candidate number on the answer sheet in the spaces provided unless this has already been done for you.

There are **forty** questions in this paper. Answer **all** questions. For each question there are four possible answers, **A, B, C** and **D.** Choose the **one** you consider correct and record your choice in **soft pencil** on the separate answer sheet.

Read very carefully the instructions on the answer sheet.

INFORMATION FOR CANDIDATES

Each correct answer will score one mark.

A mark will not be deducted for a wrong answer.

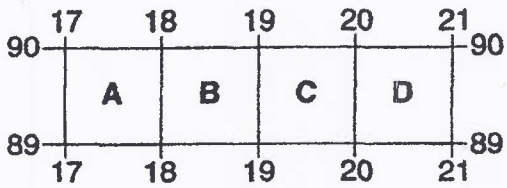
Any rough working should be done in this booklet.

This question paper consists of 15 printed pages and 1 blank page.

Mapwork

Questions 1 to 12 refer to the 1:50 000 map of Gwanda (Zimbabwe).

1. Which grid square has the largest number of buildings and huts?



2. What is the main source of water for the Reservoir and Irrigation Scheme in grid square 1990?
   - A Hulube dam
   - B Nkazhe dam
   - C Sabazimba dam
   - D Samakuto river

3. Which feature is located at point 090828?
   - A mining dump
   - B rail bridge
   - C sewage tank
   - D sports stadium

4. What is the grid reference of the Trigonometrical Station on the top of Mt Cazalet, south of the Gwanda town?

   A 081812 B 082811 C 098829 D 099828

Questions 5 and 6 refer to the two Trigonometrical Stations in grid squares 1084 and 1485.

5. What is the straight line distance between the two Trigonometrical Stations?

   A 3500 metres B 4000 metres C 4500 metres D 5000 metres

6. What is the grid bearing of the Trigonometrical Station in grid square 1485 from the Trigonometrical Station on Spitzkop in grid square 1084?

   A 076° B 104° C 256° D 284°

7. In which direction is the general flow of the river Nkazhe, through the Matshetshe Communal Land?
   A north-west to south- east
   B north-east to south-west
   C south-east to north-west
   D south-west to north-east

8. From a hill-top a person can see a Business Centre to the north-east.

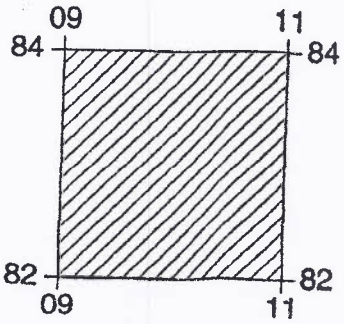
   In which grid square is this hill-top located?
   A 1084 B 1485 C 1589 D 2188

9. Where is settlement in the Matshetshe Communal Land mainly located?
   A along major river channels
   B along tarred roads
   C around large dams
   D around the edge of cultivated land

10. The map shows some evidence of mining activity in grid square 0987.

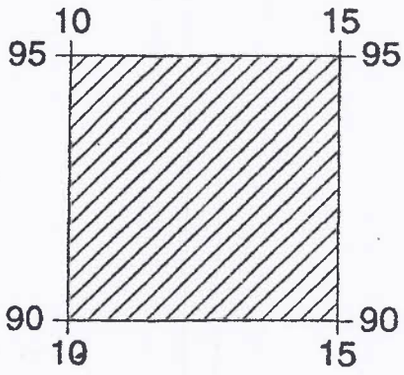
    Which type of evidence is **not** shown in this grid square?
    A Excavation
    B Mine dump
    C Mine name
    D Prospecting trench

11. Study the map area shown.



Which type of land use occupies the most land in this map area?
A mining
B recreation
C settlement
D transport

12. Study the map area shown.

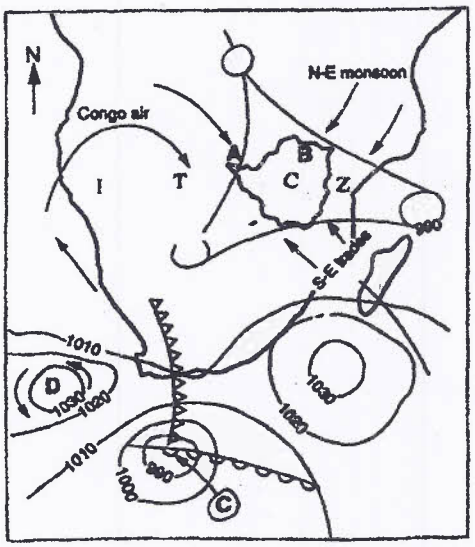


What is the main drainage pattern in this area?

A dendritic
B radial
C rectangular
D trellis

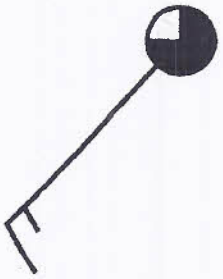
13. The weather map shows the average pressure and wind pattern in southern Africa for the month of December.

Which area experiences divergent air masses?



KEY
cold front
warm front

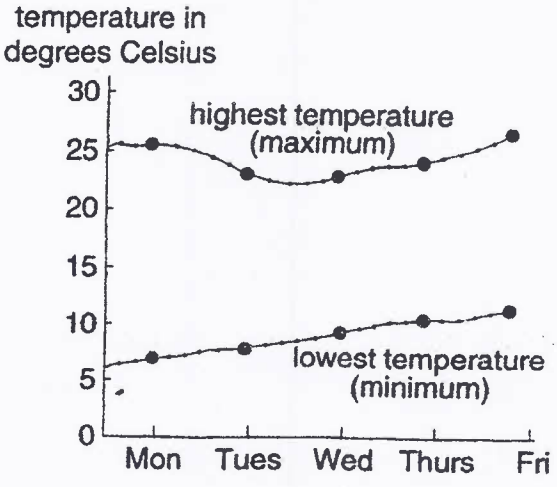
14. The diagram shows weather recorded at a school weather station.



What is the cloud cover and wind direction shown in the diagram?

	cloud cover (eighths)	wind direction
A	5	north-east
B	6	south-west
C	7	south-west
D	8	north-east

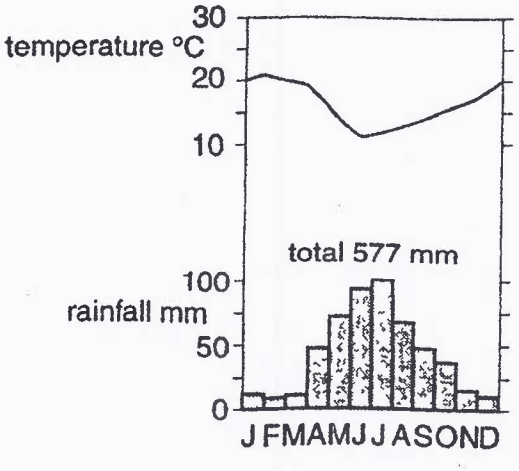
15. The diagram shows the maximum and minimum temperatures recorded at a school weather station.



What was the average temperature for the station on Monday?

A 7°C **B** 16°C **C** 8°C **D** 32°C

16. The diagram shows average temperature and rainfall at a place.



Which climate is represented by the graphs?

A Equatorial
B Hot desert
C Mediterranean
D Tropical continental

17. Which human activity may lead to the formation of acid rain?

A cloud seeding
B deforestation
C hydro-electric power generation
D manufacturing

18. Which instrument is used to measure earthquake vibrations?
    A anemometer
    B barometer
    C hygrometer
    D seismometer

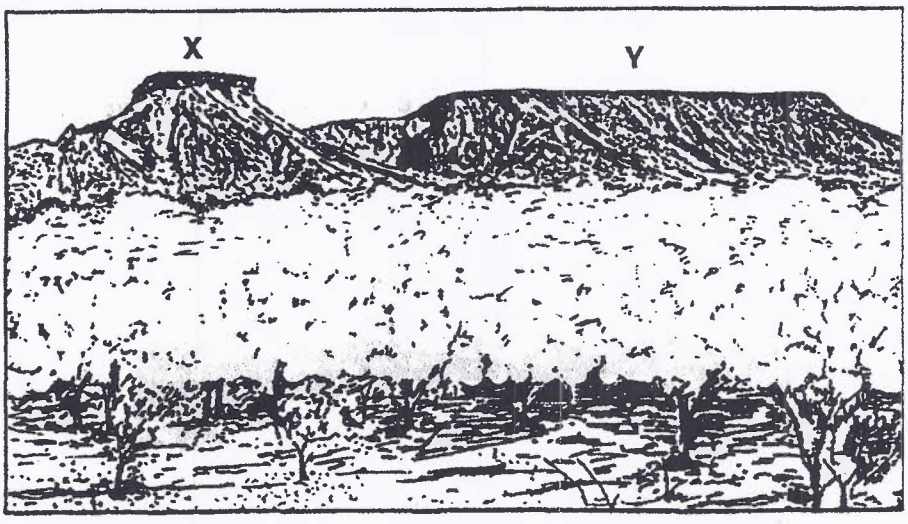
19. The photograph shows a rock feature common in Zimbabwe.

What is the main process responsible for shaping the surface of the rock feature?
    A biological weathering
    B carbonation
    C exfoliation
    D freeze-thaw

20. Which conditions are needed for a river delta to form?
    A abundant coral at the river mouth
    B steep descent to the river mouth
    C very salty water near the river mouth
    D weak sea currents near the river mouth

21. Which process is mainly responsible for the formation of pot holes on a river bed?
    A attrition
    B corrasion
    C deposition
    D solution

22. The diagram shows a type of landscape commonly found in arid and semi-arid areas.

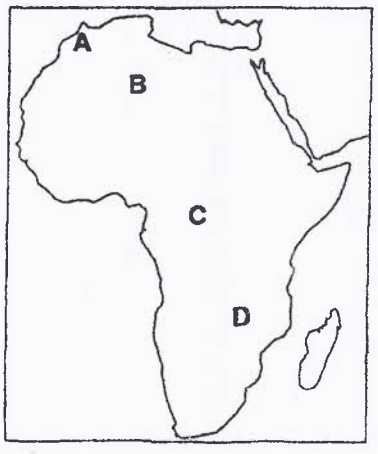


What are landscape features **X** and **Y**?

	X	Y
A	butte	mesa
B	butte	yardang
C	zeugen	mesa
D	zeugen	yardang

23. The diagram shows a type of natural vegetation.

Which place on the map has this type of vegetation?

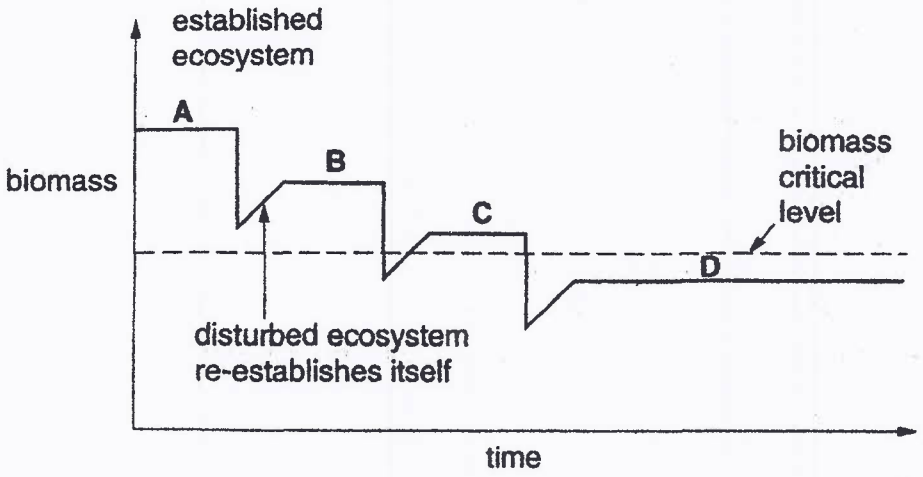


24. Which term is used to describe the highest level of succession of vegetation and animal life in an ecosystem?

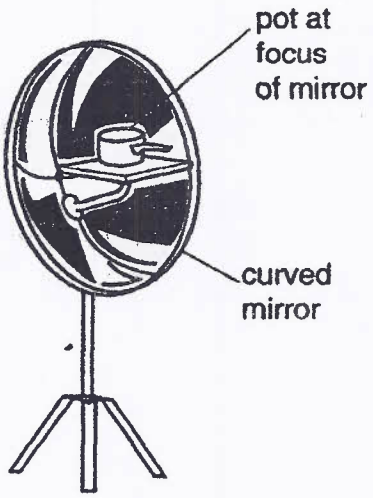
A climax community
B pioneer community
C plagio-climax community
D succession community

25. The diagram shows the vegetation and animal matter (biomass) in an ecosystem over time.

At which stage is it most critical to introduce conservation measures, like destocking, to save the animal life and protect the environment?



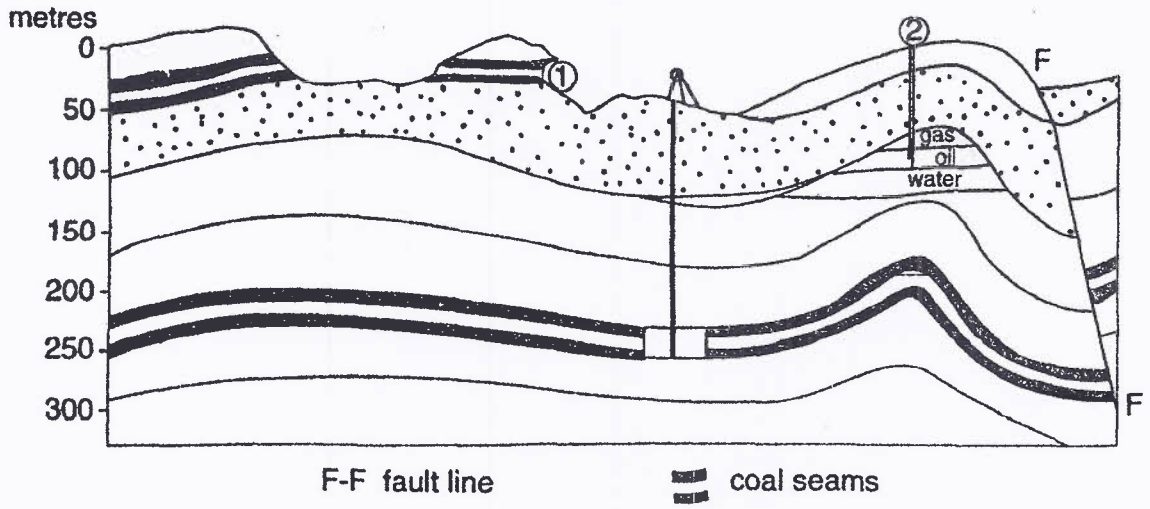
26. The diagram shows a cooker suitable for rural communities in developing countries.



Which type of energy is used by the cooker?

A biogas
B firewood
C hydro-electricity
D solar

27. The diagram shows rock structure containing a number of minerals.



Which mining methods are being used at 1 and 2 respectively?

	1	2
A	adit	drilling
B	adit	panning
C	shaft	drilling
D	shaft	panning

28. What is the main method used for gully reclamation in Zimbabwe?
A afforestation
B contour ridging
C infilling
D terracing

29. Which type of farming is most suitable for areas where there is plenty of land, poor soil fertility, low rainfall and effective disease control?
A commercial ranching
B market gardening
C plantation agriculture
D shifting cultivation

30. Why is tobacco usually cured on the farms where it is grown?
A to avoid leaf deterioration
B to reduce transport costs
C to supply the local farm market
D to use local fuelwood

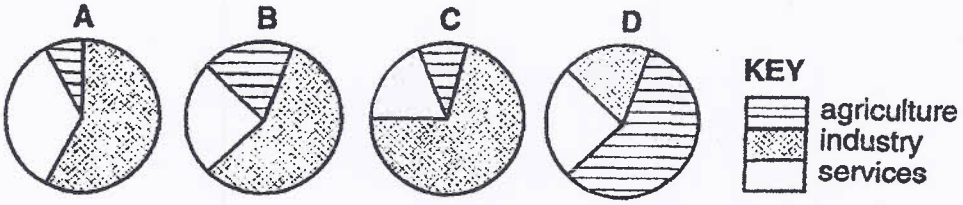
31. Governments of Third World countries are encouraging the establishment of processing industries at growth points in rural areas.

The most probable reason for this policy in Africa is
A the availability of local markets.
B to encourage people to stay in established towns.
C to reduce migration into the main cities.
D to encourage the decentralisation of administrative functions.

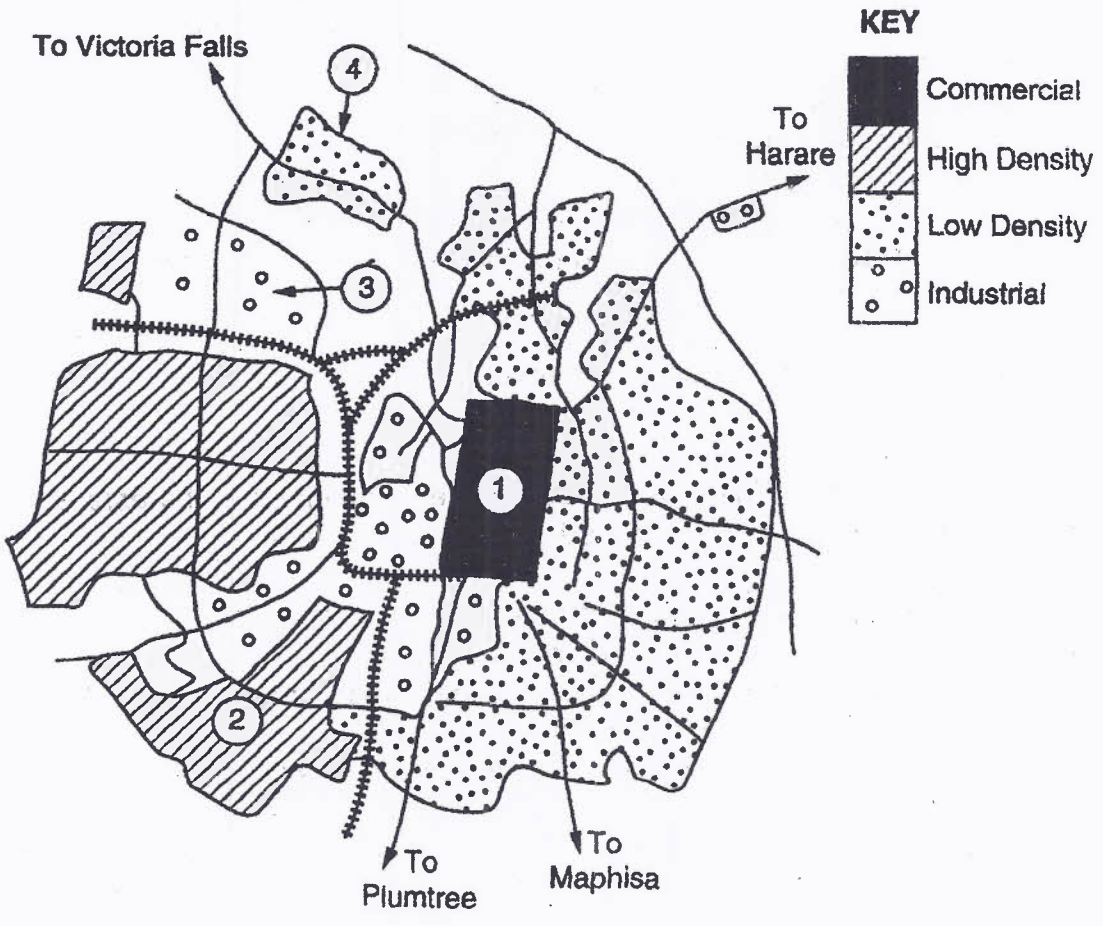
32. What attracts the majority of tourists from North America and Western Europe to Zimbabwe?
A business opportunities
B mountains and limestone caves
C stone ruins and hotels
D sunshine and wildlife

33. The pie charts show percentages contributed by agriculture, industry and services to the gross national product (GNP) for four countries.

Which country has the least developed economy?



34. The map shows land use zones in a city.

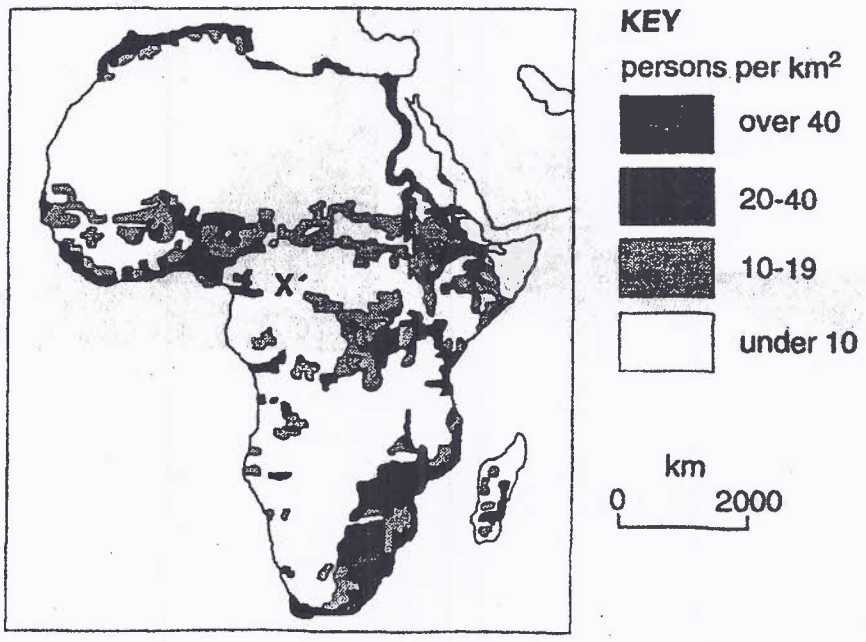


The manager of a computer company lives in a big house with a large garden.

Which land use zones represent her place of work and residence?

	place of work	place of residence
A	1	2
B	1	4
C	3	2
D	3	4

35. The map shows the distribution of population in Africa.



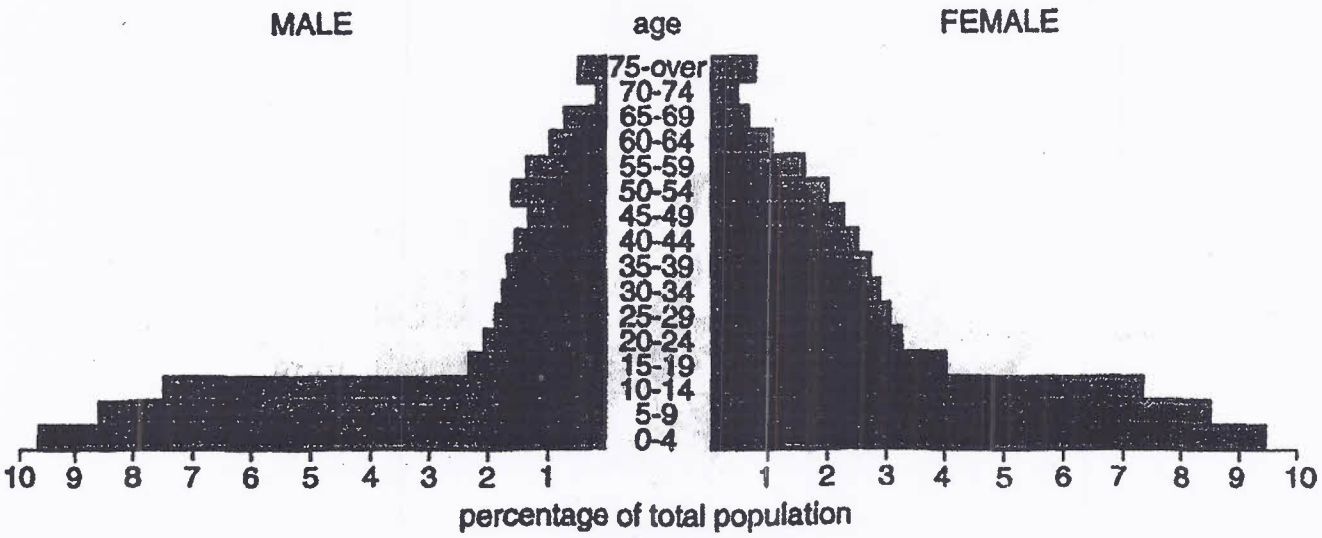
Why does area **X** have a low population density?

A It is a desert.
B It is cold and windy.
C It is hot and humid.
D It is mountainous.

36. Which population movement in Africa involves only the economically active population groups?

A migration of labour to mines
B nomadic pastoralism
C urban-rural migration
D urban-suburban migration

37. The graph represents the population structure of a settlement in a developing country.



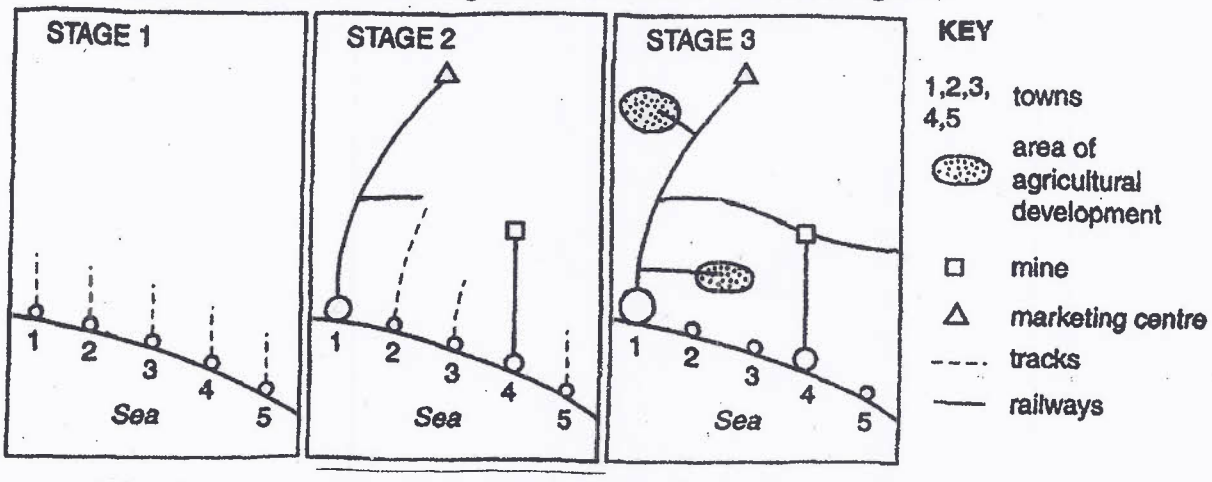
Which type of settlement is represented by the graph?

A army camp
B capital camp
C mining town
D rural village

38. Which of the following is **not** an advantage of the use of containers for bulk transport compared with traditional methods?

A greater variety of cargoes
B more jobs provided
C quicker loading and unloading
D reduced losses

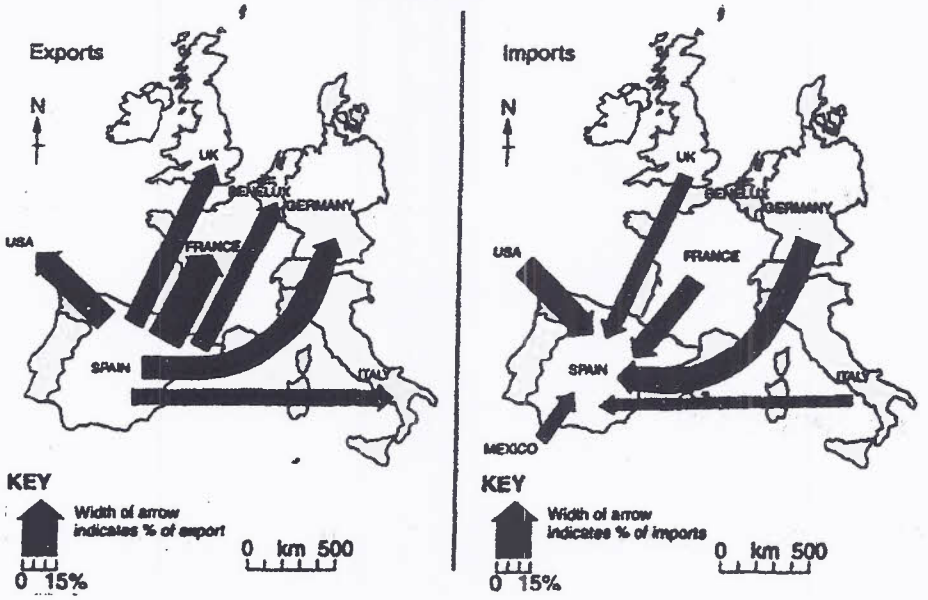
39. The model shows how some African countries developed transportation links from colonial times (Stage 1) to modern times (Stage 3).



Why has town 1 become the largest of the five original points of entry (1 to 5)?

A It developed originally for exporting minerals.
B It has a developed network with its hinterland.
C It has the best natural harbour.
D It is the shortest distance from areas of agricultural development.

40. *The maps show the exports and imports from Spain in 1990.*



With which country did Spain have the largest trade deficit?

A France
B Germany
C UK
D USA

GEOGRAPHY **JUNE 2000**

2248/01

POSSIBLE ANSWERS

MAPWORK (1:50 000 GWANDA)

1.	B	2.	B
3.	B	4.	A
5.	C	6.	A
7.	A	8.	C
9.	D	10.	A
11.	C	12.	A

PHYSICAL ENVIRONMENT

13.	D	14.	B
15.	B	16.	C
17.	D	18.	D
19.	C	20.	D
21.	B	22.	A
23.	D	24.	A
25.	C		

ECONOMIC GEOGRAPHY

26.	D	27.	A
28.	C	29.	A
30.	A	31.	C
32.	D	33.	D

POPULATION, SETTLEMENT AND TRADE

34.	B	35.	C
36.	A	37.	D
38.	A	39.	B
40.	A		

/SK
RED-SPOT-2248-01 J00

ZIMBABWE SCHOOL EXAMINATIONS COUNCIL

General Certificate of Education Ordinary Level

GEOGRAPHY

2248/2

PAPER 2

Tuesday 6 JUNE 2000 Morning 2 hours 30 minutes

Additional materials:
Answer paper

TIME 2 hours 30 minutes

INSTRUCTIONS TO CANDIDATES

Write your name, Centre number and candidate number in the spaces provided on the answer paper/answer booklet.
Answer **four** questions.
Answer **one** question from each of Sections A, B and C and **one** other question from any section.
Write your answers on the separate answer paper provided.
If you use more than one sheet of paper, fasten the sheets together.

INFORMATION FOR CANDIDATES

The number of marks is given in brackets [ ] at the end of each question or part question.
Insert 1 contains Photograph A for use with Question 2.
Insert 2 contains Photograph B for use with Question 6 and Photograph C for use with Question 7.
Sketch maps and diagrams should be drawn whenever they serve to illustrate an answer.

This question paper consists of 10 printed pages, 2 blank pages and 2 inserts.

[Turn over

Section A (Physical Environment)

Answer at least **one** question from this section.

1. **(a)** **(i)** Draw labelled diagrams to show stages in the formation of sedimentary rocks. [5]

(ii) How do **either** pressure release **or** acid rain affect the rate and type of weathering of rocks? [4]

(b) Fig. 1 below shows part of a river valley.

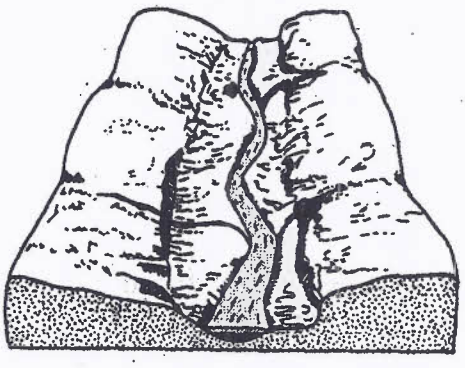


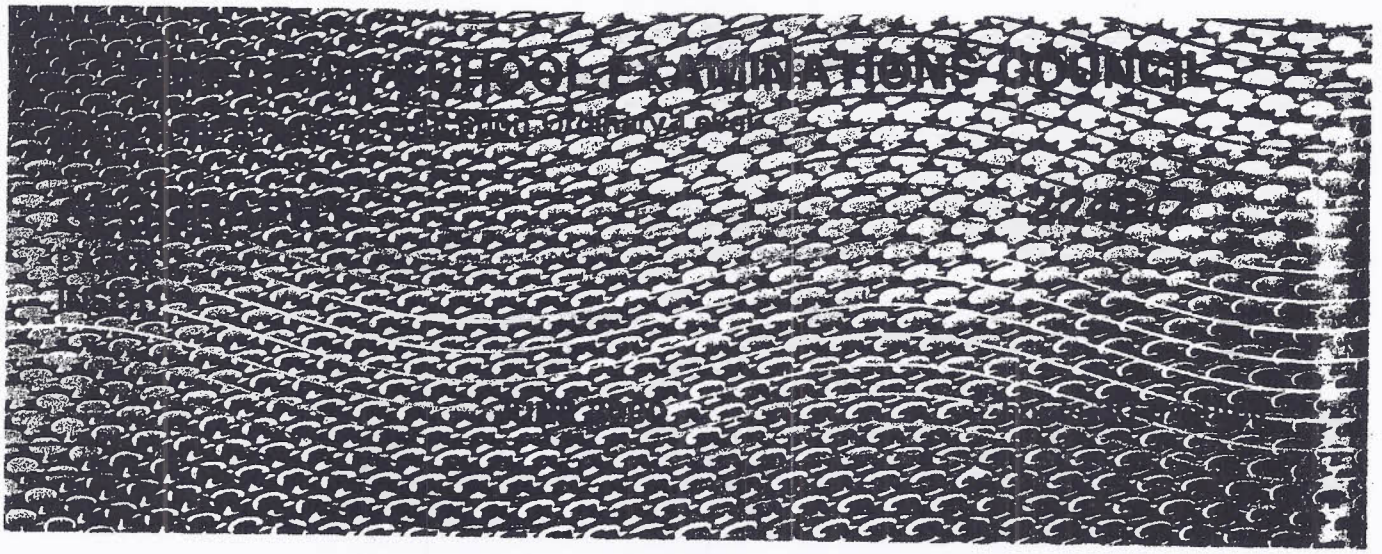
Fig. 1

(i) Describe the features of the valley shown. [4]

(ii) What changes would occur to the valley if there was a sudden uplift of the land? [3]

(iii) State **three** problems likely to be faced by people living in the valley as a result of the sudden uplift referred to in **(b)(ii)** above. [3]

(c) Suggest the benefits and problems associated with **either** an area of inland drainage **or** geysers and hot-springs. [6]



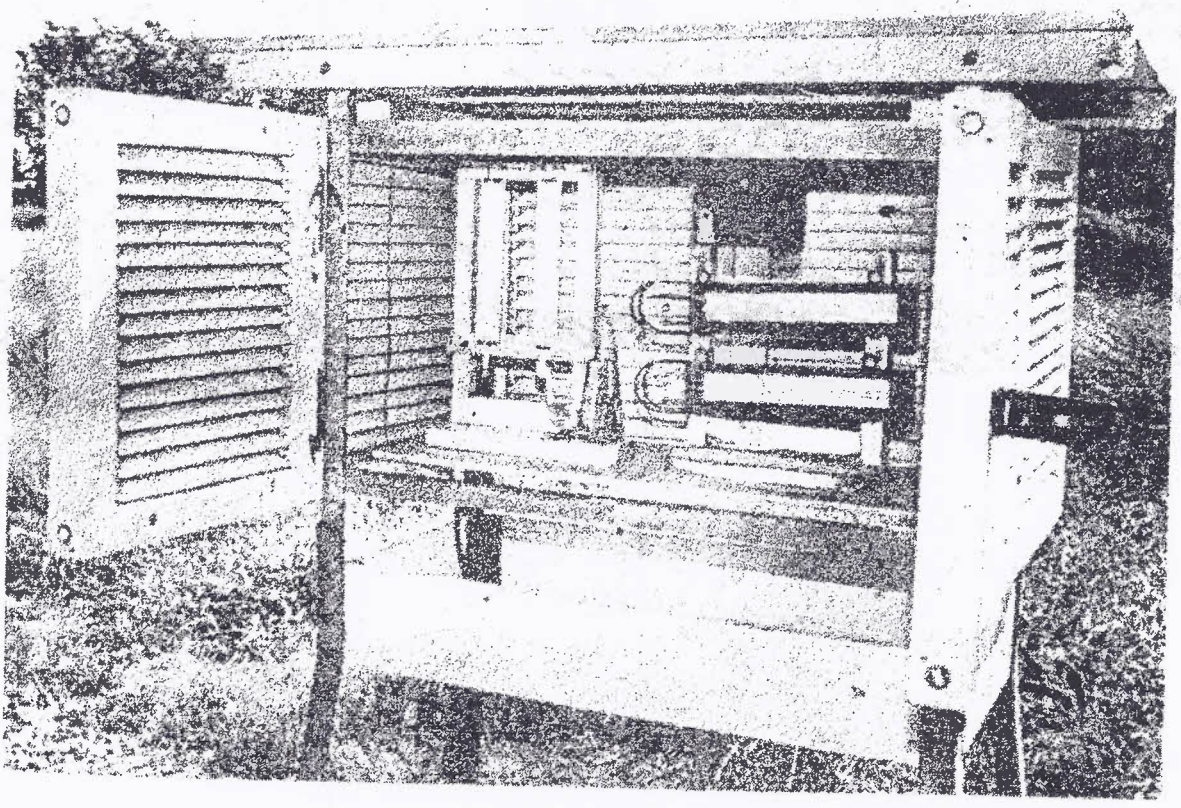
INSTRUCTIONS TO CANDIDATES

This insert contains Photograph A for use with Question 2.

This insert consists of 2 printed pages.

[Turn over

Photograph A for Question 2



2. (a) Study Photograph A (insert 1) which shows a Stevenson Screen.

(i) Describe and explain the features of the Stevenson Screen shown. [8]

(ii) Name the two instruments shown. [2]

(b) Fig. 3 below shows a cross-section of a depression.

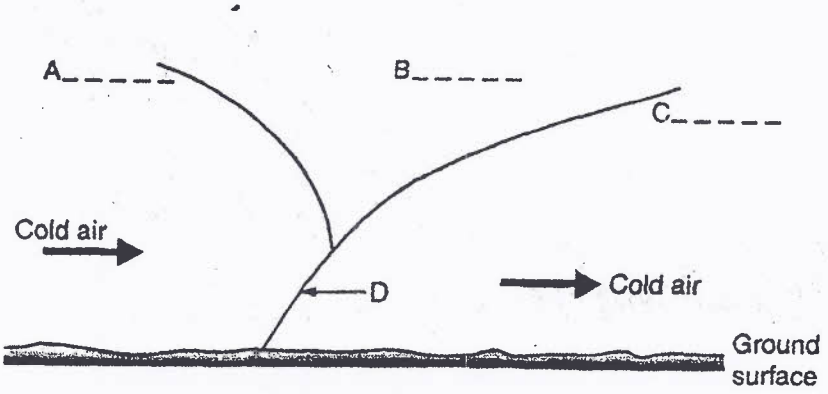


Fig. 3

(i) On Fig. 3 label the features marked A, B and C. [3]

(ii) Describe the weather conditions at D. [3]

(c) What weather conditions are of interest to both farmers and tourists? Give reasons for your answer. [9]

3. (a) Fig. 4 shows two ecosystems A and B, both drawn to the same scale.

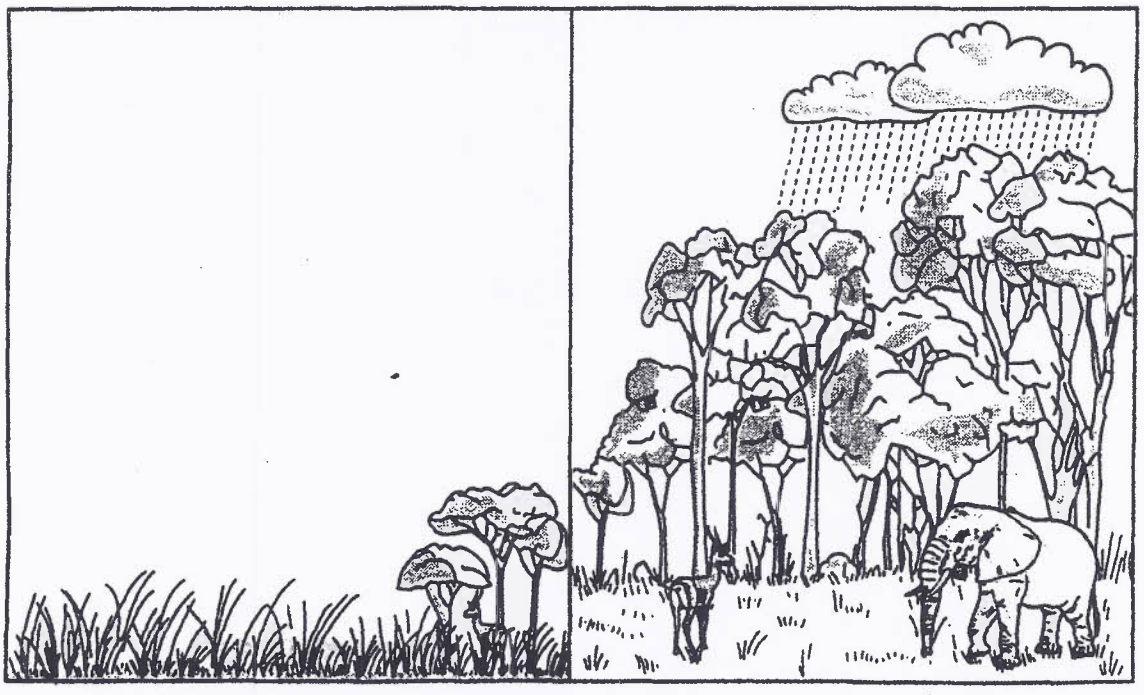


Fig. 4

(i) Describe the characteristics of each of the ecosystems A and B. [5]

(ii) State the economic activities which can be practised in each of the ecosystems shown. [5]

(iii) Soil erosion and the extinction of species are two serious problems facing ecosystems. Choose one of the problems and outline its causes and effects on any ecosystem you have studied. [7]

(b) One of the major principles in the exploitation of ecosystems is 'sustainable use of resources' (i.e. use of resources without destroying the environment).

Suggest measures you would recommend to communal farmers to achieve sustainable use of resources. [8]

Section B (Economic Geography)

Answer at least **one** question from this section.

4. (a) Study Fig. 5 below which shows the production cycle of renewable resources.

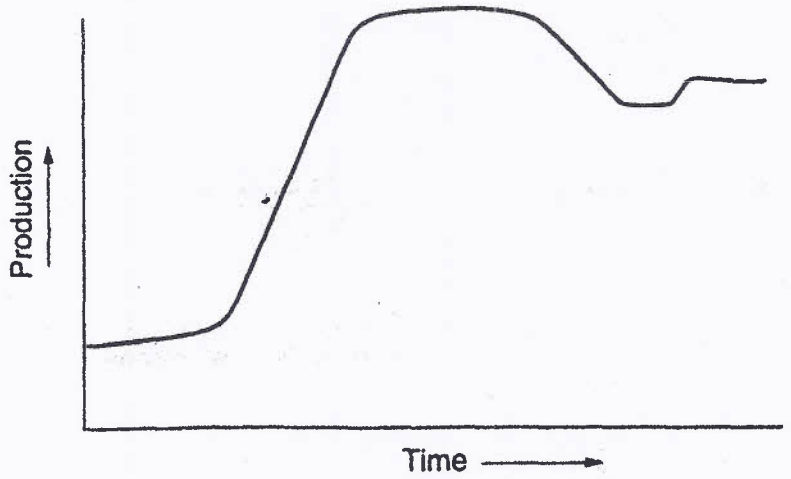


Fig. 5

(i) Explain the difference between renewable and non-renewable resources. [2]

(ii) Using Fig. 5 describe and explain trends in the production of renewable resources. [8]

(b) With reference to the production of fuel in Africa (excluding Zimbabwe), draw a map to show a producing area and describe the factors that have encouraged large scale production there. [7]

(c) Zimbabwean water resources are being threatened at an alarming rate. State **one** such threat and explain the problems it poses on water resources and the health of the people.

Suggest measures people should take to control it. [8]

5. **(a)** Fig. 6 shows factors which influence agriculture.

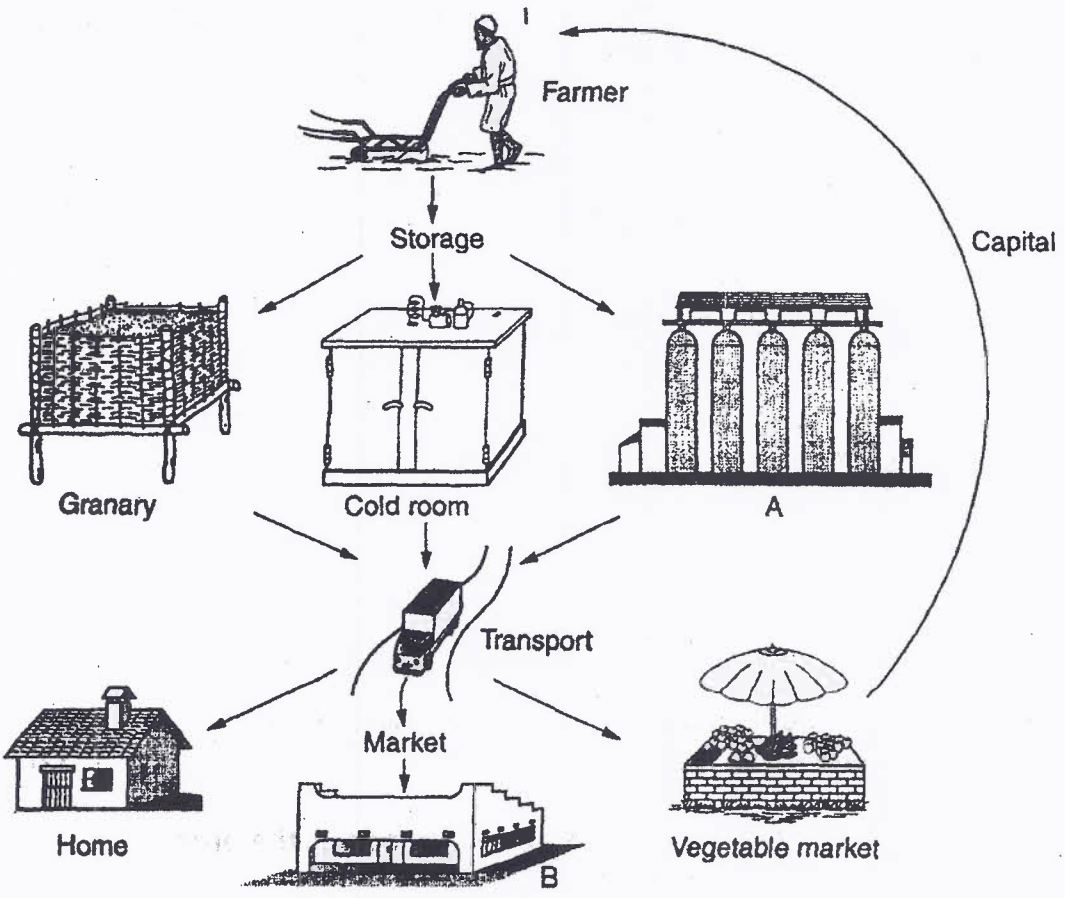


Fig. 6

(a) **(i)** Name the storage marked A and the market marked B. [2]

(ii) Describe the advantages and disadvantages of each of the storage facilities shown. [8]

(iii) Using Fig. 6 explain how markets promote agriculture. [3]

(b) With reference to the Grain Marketing Board (GMB) or any other agricultural organisation in Zimbabwe which you have studied, describe the services it offers to farmers. [5]

(c) As chairperson of the land resettlement programme in your province, what arguments would you present for and against the redistribution of commercial farms in the area? [7]

ZIMBABWE SCHOOL EXAMINATIONS COUNCIL

General Certificate of Education Ordinary Level

GEOGRAPHY

224/2

PAPER 2

INSERT 2

JUNE 2020

INSTRUCTIONS TO CANDIDATES

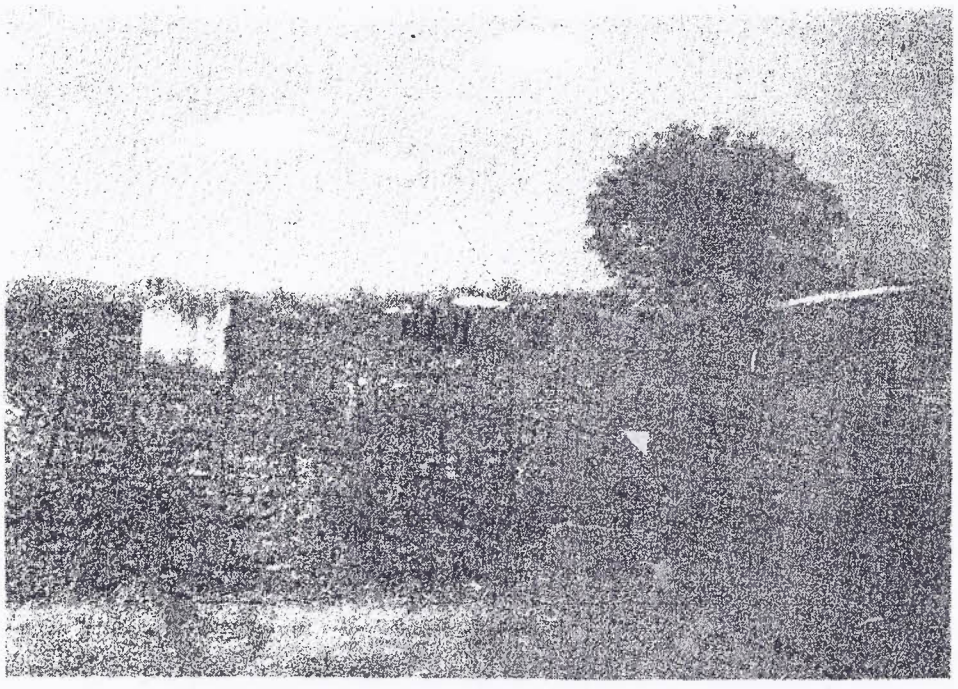
This insert contains Photograph B for use with Question 6(a) and Photograph C for use with Question 7(a).

This insert consists of 2 printed pages.

[Turn over

Photograph B for Question 6

Photograph C for Question 7



6. (a) Study Photograph B (insert 2) which shows a service industry.

(i) Describe the scene in the photograph. [5]

(ii) Why is the type of trading shown in Photograph A rapidly expanding in developing countries? [4]

(iii) What recommendations would you make to the government to improve these types of service industries? [4]

(b) Some raw materials lose weight whereas others gain weight during manufacturing. Choose one of these industries and draw a labelled sketch map to show its location. [5]

(c) In Zimbabwe, industries often relocate from other places to Harare or to neighbouring countries. Explain the causes of the relocation and state the effects on the source areas. [7]

Section C (Population, Settlement and Trade)

Answer at least **one** question from this section.

7 **(a)** Study Photograph C (insert 2) which shows a small settlement in Zimbabwe.

(i) Describe the quality of the environment shown. [4]

(ii) How does the environment described in **(a) (i)** affect the quality of life of the people in the area? [4]

(iii) Suggest how the problem of population pressure can be controlled in the communal areas of Zimbabwe. [4]

(b) Fig. 7 below shows the percentages of the male and female populations of Zimbabwe who are economically active.

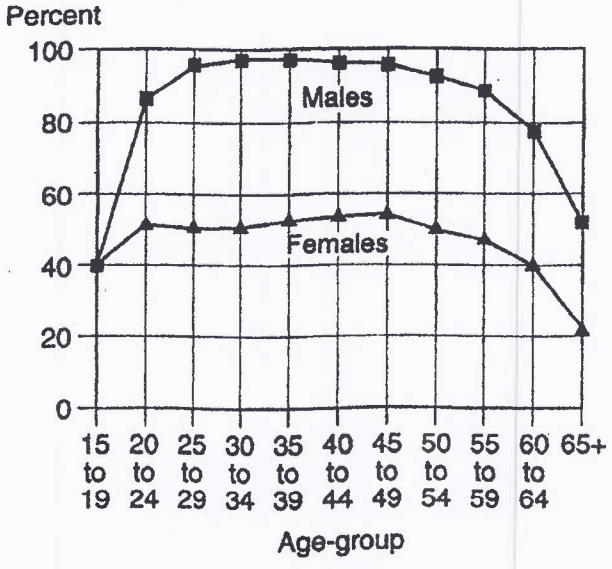


Fig. 7

(i) What percentage of males are economically active in the 55 - 59 age group? [1]

(ii) What percentage of female are economically active in the 55 - 59 age group? [1]

(iii) Describe and explain the trends in the economic activity ratios shown. [8]

(c) Explain why the natural increase in population is still very high in the communal areas of Zimbabwe. [3]

8. (a) Describe and explain the characteristics of a Central Business District (CBD). [7]

(b) Study Fig. 8 which shows land uses in Greater Harare.

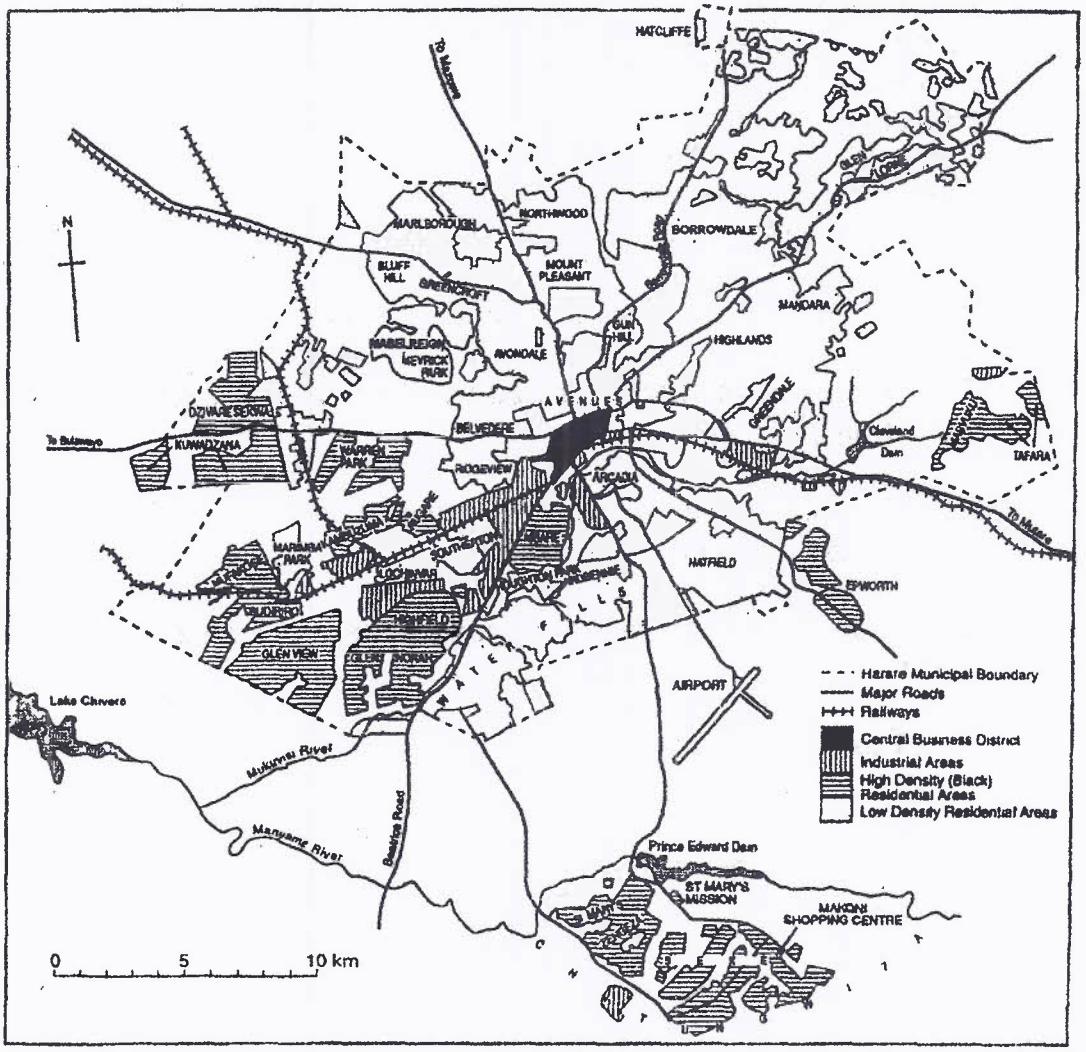


Fig. 8

(i) Using map evidence only, explain the location of high density residential areas. [6]

(ii) Explain why Lake Chivero experiences pollution problems. [3]

(iii) State **two** advantages of the location of the airport. [2]

(c) In both rural and urban areas in Zimbabwe, residents complain of the growing problem of squatters. What complaints are likely to be raised by the residents concerning squatters? [7]

9. **(a)** In a field study, a geography class discovered the following about the transport system of a village:

4 scotchcarts
80 oxen and donkeys
5 bicycles
10 sledges
1 bus
5 km of dust roads
numerous paths

(i) Describe the quality of transport available in the village. [4]

(ii) State the problems created by the available means of transport. [4]

(iii) Suggest, giving reasons, solutions to the problems you stated in **(a) (ii)** above. [7]

(b) Table 1 below shows the percentage trade between Zimbabwe and other countries.

Table 1: Zimbabwe's main trade partners.

South Africa	25%
United Kingdom (UK)	15%
Germany	9%
USA	6%
Japan	5%
Other countries	40%

(i) Draw a pie graph to represent the above information. [3]

(ii) Give reasons for the large volume of trade between Zimbabwe and South Africa. [5]

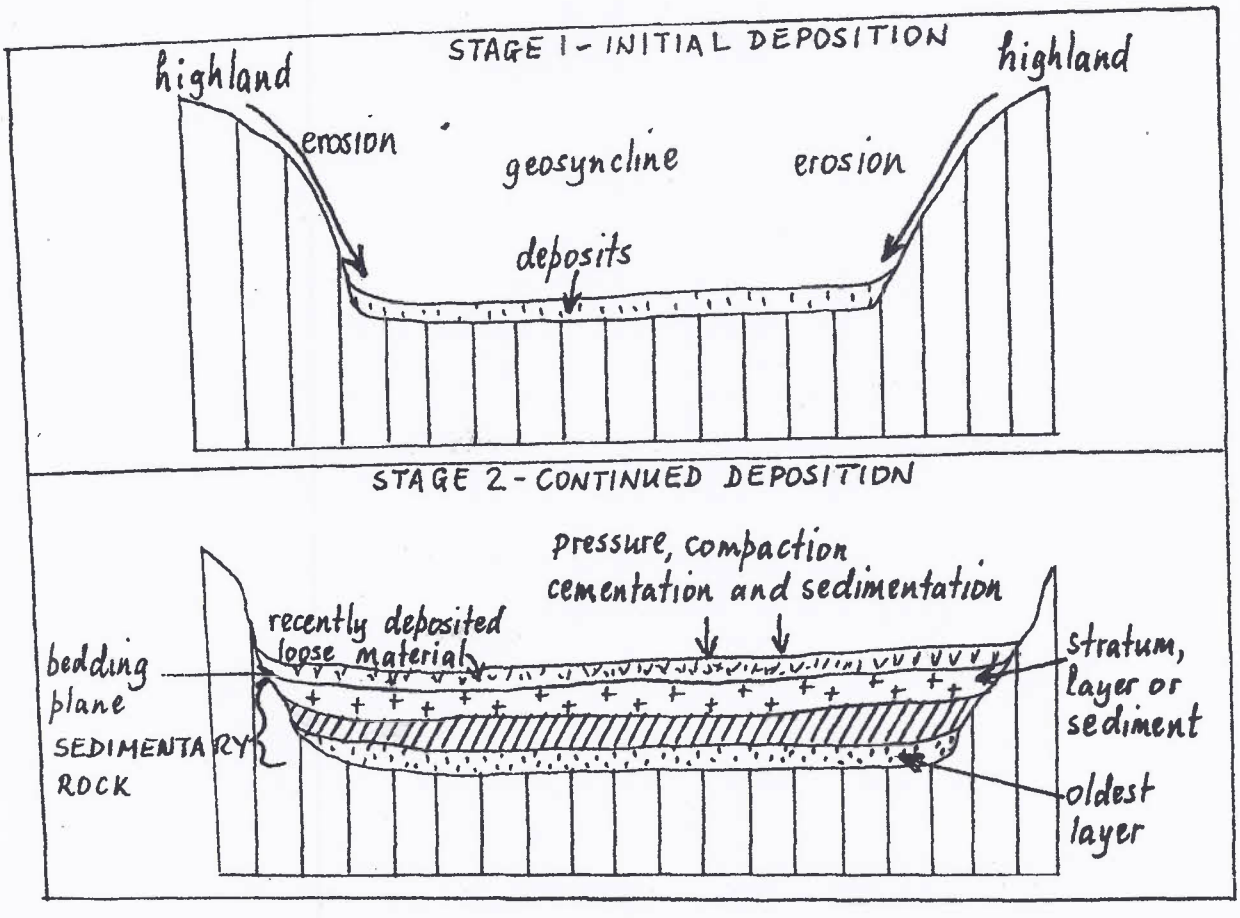
(iii) State **two** disadvantages of Zimbabwe's trade patterns shown in **Table 1.** [2]

GEOGRAPHY **JUNE 2000**

2248/02

POSSIBLE ANSWERS

1. (a) (i) deposition, layering, pressure, compaction, cementation, strata, bedding planes



1 mark each 5 marks

(ii) Pressure release

development of cracks and joints, peeling off in layers, formation of boulders, balancing rocks. It is physical weathering. It increases rate of physical weathering.

Acid rain
It is chemical weathering. It increases rate of chemical weathering. Dissolution, carbonation, grikes and clints, stalactites, stalagmites, carverns, dry valleys, underground drainage etc.
1 mark each 4 marks

(b) (i) Meandering, bluffs, flood plain, deposition, wide channel, U-shaped valley, widening valley down stream, truncated spurs.

1 mark each 4 marks

(ii) deepening of the valley, rejuvenation, paired terraces, gorges, knick points, waterfalls, rapids, hanging valleys, v-shaped valley.

1 mark each 4 marks

(iii) washing away of houses, crops and top soil, cutting of communication lines, reduced navigation, landslides.

1 mark each 3 marks 11

(c) Inland drainage

benefits	problems
water	diseases
salt	salty water supplies
fish	mosquitoes
recreation	bilharzia,
tourism	heat (very hot)
	droughts.

Geysers and Hot Springs

benefits	problems
healing	poisonous gases
spars	destruction of vegetation
tourism	instability of the ground
water supply	earth tremors.
geothermal power etc	hard water

1 mark each 6 marks [25]
(Reserve 2 marks for either benefits or problems)

2. (a) (i)
- raised, - to avoid ground radiant heat.
- louvered sides to allow air to enter.
- double roof - protect the instruments from direct heat and other weather elements.
- locking device - to protect the instruments from vandalism.
- instruments inside - for accurate readings.
- white colour - to reduce direct heating of the box
- wooden frame - poor heat conductor.

1 mark each
(Reserve 3 marks for either description or explanation)
8 marks

(ii) hygrometer and Six's thermometer or maximum and minimum thermometers. 2 marks 10

(b) (i) A - cold front
B - warm sector
C - warm front

1 mark each 3 marks

(ii) fog, light rain, drizzle, falling pressure, light winds, temperature drops, overcast, dull weather, nimbostratus clouds. 3 marks 6

1 mark each

(c)

WEATHER CONDITION	FARMER	TOURIST
Sunny	Farm operations occur, Crops grow.	Sun bathing, travel easy.
Snowy	Animal and crop protection.	Snow sports, e.g. skiing.
Cool	Ideal for some crops and animals.	Easy to travel and for outdoor walks
Windy	Protection of crops, etc	Ideal for gliding
Dry	Irrigation needed	Roads less muddy
Rainy	Crops and pasture thrive	Difficult to travel.

1 mark each 9 marks [25]
(Reserve 4 marks for either weather conditions or reasons).

3. (a) (i) A - grass, bushes, bushy trees, scattered trees, small trees, small animals, low biodiversity, drier/semi desert, savanna.

B - large trees, bigger animals, shorter grass, denser forest, wet, woodland, tropical rainforest, clouds, rain, wide

biodiversity. 5 marks

(ii) A - grazing, arable land, hunting, dry land crops, irrigation, game farming, national parks, thatch grass.

B- hunting, forestry, tourism, growing tree crops, grazing, game farming.

1 mark each 5 marks
(Reserve 2 marks for either A or B)

(iii) Soil erosion

causes - cutting down of trees, cultivation, overgrazing, drought, veld fires, use of sledges, running water, wind etc.

effects - reduced forests, reduced species of animals, destruction of forests, migration of animals, reduced rainfall, land degradation, siltation, gullies, flooding, famine, death of animals and people, desertification.

Extinction of species

Causes - hunting, veld fires, cultivation, keeping of domestic animals, droughts, deforestation, traditional medicines, commercial logging, poaching and overfishing.

Effects - bare- surfaces, reduced biodiversity, lack of firewood, reduced precipitation, droughts, soil erosion, siltation, gullies.

1 mark 7 marks 17
(Reserve 2 marks for either causes or effects)

(b) growing trees, protecting indigenous forest, water harvesting, use of contour ridges, destocking, paddocking, campfire, grass seeding, education and training, redistribution of land/reduce population pressure, gully reclamation, resettlement, villagisation, freehold tenure.
1 mark each 8
[25]

4. (a) (i) Renewable - non-exhaustible or infinite, e.g. wood, fish, water.
Non-renewable - exhaustible or finite e.g. minerals.

(complete differences for 2 marks) 2 marks

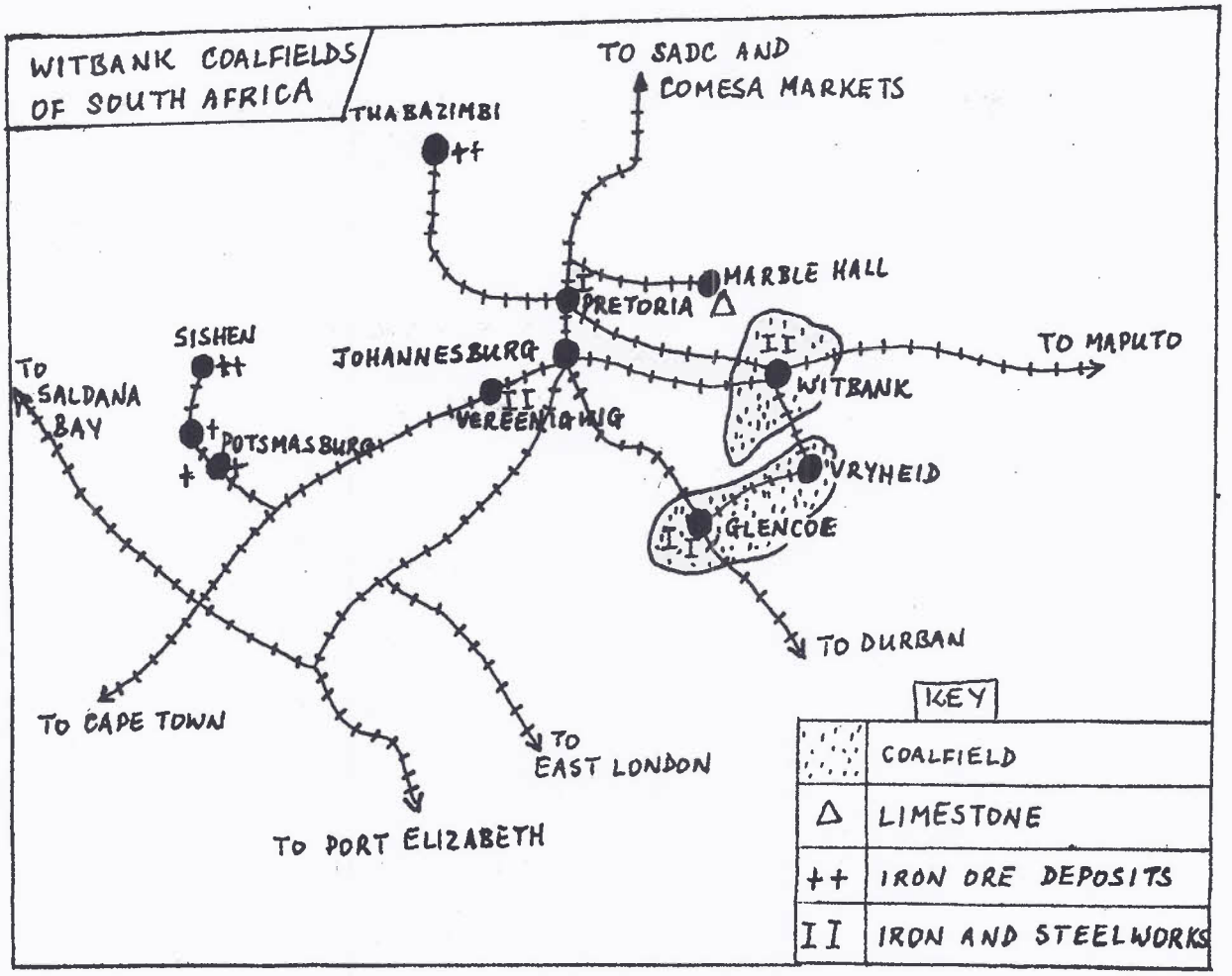
(ii)

Description	Explanation
low and stable production	primitive people using the resource low demand, poor technology
sharp rise	high demand, improved technology, more people.
stable peak	renewable, can be maintained, conservation.
slight decline	over use at that point of time
constant	regeneration or rebuilding
rise	conservation, environmental awareness
constant	conservation.
high and fluctuating	increase in population pressure on resource.

1 mark each

8 marks 10

(b) name
fixing features
description



Factors include:

- good communication lines by rail and road.
- Large urban markets provided by industrial cities like Pretoria, Johannesburg, etc.
- TPs that use coal
- Sasol plants that use coal as a raw material
- The iron and steel industry that uses coal
- Ports for exports
- Large population providing capital labour and market
- Favourable geological structure, e.g. stable seams with little fracturing
- Water from the Vaal and Orange river projects.

7 marks

1 mark for Name, 3 marks for using fixing features and 3 marks for description/ factors.

(c) Threats - over exploitation, pollution, siltation.

Explanation pollution leads to death of aquatic life, health hazard, lack of clean water, creates various water borne diseases.

Measures control pollution, legislation, recycling, treating water, purifications, education, underground water.

1 mark each 8 marks 8

[25]

5. (a) (i) A - silo B - supermarket 2 marks

(ii)

Advantage	Disadvantage
Granary	
cheap aeration accessible to the farmer, near consumer	can collapse, decompose, exposed to adverse weather, theft, can catch fire.
Cold room	
fresh products long lasting storage, no contamination/ disease free	expensive to erect and maintain, requires and uses a lot of electricity, power failure

Silo

bulk storage safe from weather elements and theft, durable.	far from the farmer and consumer, expensive to build and maintain, needs bulky transport.

1 mark each 8 marks

(iii) provides capital, expansion of farming activities, better implements, better storage, more production.

1 mark each 3 marks

(b) Organisations ZTA, Dairiboard Zimbabwe, CFU, Cotton Company of Zimbabwe, ZFU, AFC, Seed-coop, Cargil, Pioneer and etc.

Services finance, training, research, technology, Marketing inputs, diseases control, banking services, investment opportunities.

1 mark each 5 marks

(c) For reducing land pressure, equal distribution of resources, increased production, improved income and standard of living, use or utilisation of land lying idle, employment of locals, improved income and living standards, earning a living, correcting historical injustices.

Against environmental degradation, poor conservation, lack of infrastructure, lack of capital by resettled farmers and government, corruption, no loans for new farmers, conflict between government and commercial farm owners, conflict between new and former farm owners, decline in export crops, decline in crop production and food supply, decline in agro-based industries, negative publicity, negative impact on economy.

1 mark each 7 [25]

6. (a) (i) trading, clothes hanging, clothes in piles, clothes on ground, a lot of people, open air trading, sheds in the background, little vegetation, cloudy day, telephone poles, untidy, colourful clothes, women seated on ground, houses, disorganised, mainly women, bartering, a flea market.

5 marks by ½

(ii) less capital needed, employment, cheap goods, no need for permanent structures (portable industry), government encouragement for self reliance or self - employment, economic hardships, retrenchments, goods provision, negotiable prices, empowerment of women.

1 mark each 4 marks

13

(iii) capital, training, factory units, shops, trading licences, provide stands, provide water and sanitation.

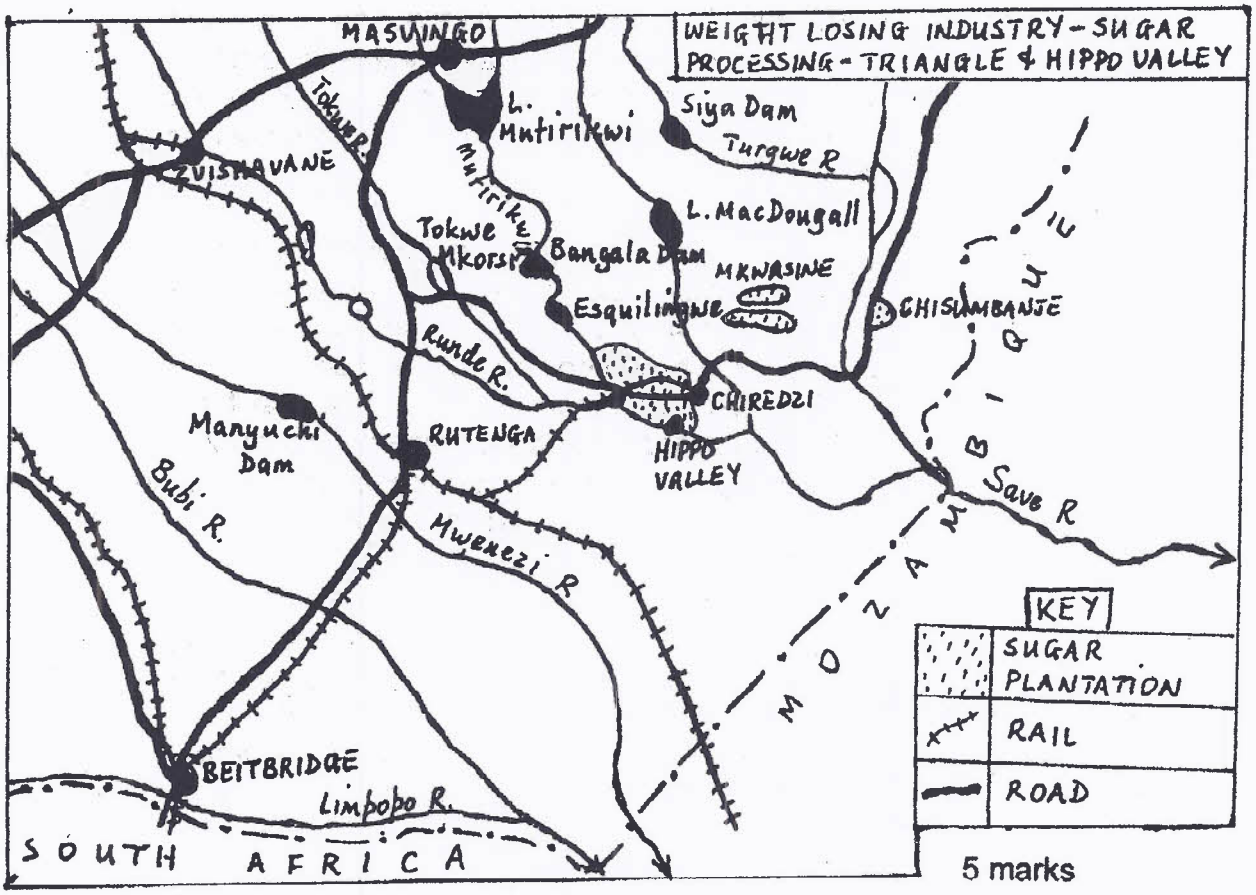
1 mark each 4 marks

(b) Fixing features Raw materials, transport, market, labour, water power.

e.g.

Weight losing Sugar, timber, tea, ginneries, iron and steel.

Weight gaining furniture, breweries, soft drinks, glass industries, clothing, assembling industries.



5 marks

(c) Causes — lack of water, poor market, government policy on remittance of profits, taxation, lack of skilled labour, attractions of Harare e.g. labour and market; agglomeration factor, political instability.

Effects — Industrial decline, unemployment, out migration, lack of development, underutilisation of infrastructure, ghost towns, physical decay of settlement, rise in crime, loss of market.

7

1 mark each [25]

(Reserve 3 marks for either causes or effects)

7. (a) (i) degraded, poor mud huts, poor blair toilets, poor fencing, dirty and untidy, rural, deforested, dry, old zinc roof, brick huts, crowded huts.

1 mark each 4 marks

(ii) Lack of fire wood, reduced production, diseases from dusty conditions, famine, diseases from the toilets, lack of draught power, lack of pastures resulting in death of animals, reduced protein intake.

1 mark each 4 marks

(iii) resettlement, destocking, family planning, growth points, migration, conservation, improve agricultural production, villagisation, birth control, education.

1 mark each 4 marks 12

(b) (i) 90% 1 mark

(ii) 48 to 50% 1 mark

Description	Explanation
more males	- cultural/historical - lack of education among females.
15 - 24 rises for both but higher in males	- more females and males from schools, - males are more, - employment age.

25 - 54 both fairly high and uniform	- working age
55 - 65 general drop in both	- retirements, deaths and retrenchments.
bigger drop in males	- lowerlife expectancy, culture

Alternatively

consider specific and individual comparison or descriptions of age groups or males and females

1 mark each

(Reserve 3 marks for description or explanation) 8 marks
10

(c) lack of education, prestige, free/cheap labour, importance of the male child, resistance to change or new ideas, reduced access to contraceptives, early marriages, cultural/religious practices.

1 mark each 3
[25]

8. (a)

Characteristics	Explanations
tall buildings	limited space
high human traffic	commercial centre
high motor traffic	commercial centre
commercial functions	high number of people
centrally located	heart of the city, route focus
little industrial activities	expensive rents and limited space.
little residential population	expensive land and use mainly commercial.
planning	to use space economically

1 mark each 7 marks

(b) (i)

Location	Explanation
S.W	close to industries, close to transport system.

Outskirts of the city	upgraded squatter settlements, expansion of new residential areas.
Mabvuku and Tafara (East)	domestic labour for Highlands
S.E. Epworth	domestic labour for Hatfield.
North - Hatcliffe	domestic labour for Borrowdale
South - Chitungwiza	dormitory or new residential areas.
Mbare	oldest residential area, closer to C.B.D and industries for labour.
West - Dzivarasekwa, Kuwadzana	Domestic labour for Mabelreign

1 mark each 6 marks

(ii) - Mukuvisi brings pollutants from industries and residential areas
- Manyame - pollution from Chitungwiza
- Squatter settlements along rivers bring pollution.
- Cultivation along the two rivers causes pollution.
- Chemicals from commercial farms along the rivers cause pollution.

1 mark each 3 marks

(iii) far from residential areas/noise pollution, accessible by road, no other landuses, flat vacant land available.

1 mark each 2 marks 11

(c) prostitution, crime, drugs, theft, pollution of land, water and air, land degradation, diseases, lawlessness, beggars, street kids, poaching, stock theft, deforestation, dirty, poor sanitation.

1 mark each 7 marks

[25]

(a) (i) generally poor forms of transport, inadequate modern transport, poorly developed roads, reliance on traditional means of transport, slow and inefficient transport.

1 mark 4 marks

(ii) land degradation, goods going bad, carry little volume, death of animals, 1 (one) bus is very unreliable, breakdown of bus due to

poor dust roads, bus may be withdrawn, poor marketing of goods, overcrowded bus, overcharging, corruption.

1 mark each 4 marks

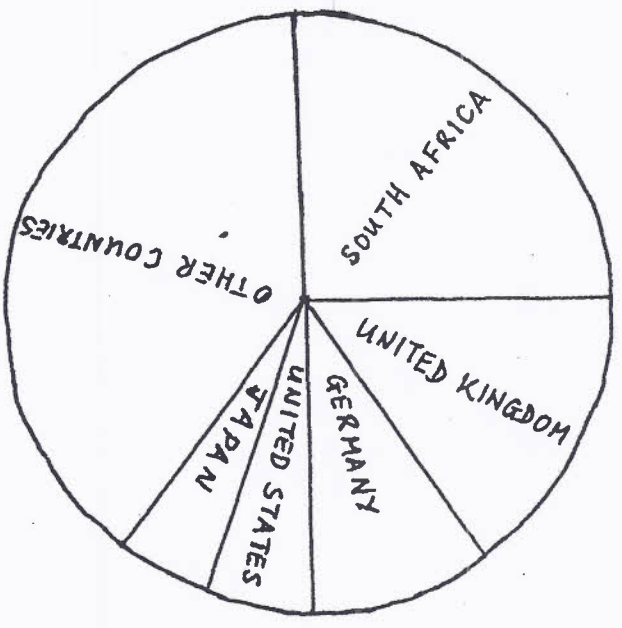
(iii)

Solution	Explanation/Reason
tarring	attract more buses, improve speed, reduce break downs.
banning use of sledges	to reduce land degradation, to reduce soil erosion.
introduce tractors	to eliminate use of sledges and animal power.
increase bicycles	environmentally friendly, increase mobility, cheaper, no fuel problems.

1 mark each 7 marks

15

(b) (i)



3 marks by ½

(ii) port facilities, nearness, friendly relations, former colonial links, more transport facilities, civil wars in Mozambique and Angola, (reduced northern routes), greater diversity and larger economy in South Africa, SADC links, TNCs operating in Zimbabwe have headquarters in South Africa.

1 mark each 5 marks

(ii) Countries very far except for South Africa, very well developed partners hence controls prices.

- colonial - suppresses or dictates to Zimbabwe - pegs prices.
- over-dependence on South Africa.
- landlocked position
- shortage of forex
- unfavourable trade balance.

1 mark each

2 marks 10

[25]

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ZIMBABWE SCHOOL EXAMINATIONS COUNCIL

General Certificate of Education Ordinary Level

GEOGRAPHY 2248/1

PAPER 1 Multiple Choice

Friday 3 NOVEMBER 2000 Afternoon 1 hour 15 minutes

The 1:50 000 Concession Map is enclosed with this question paper

Additional materials:
Multiple choice answer sheet
Soft clean eraser
Soft pencil (type B or HB is recommended)

141542

TIME 1 hour 15 minutes

INSTRUCTIONS TO CANDIDATES

Do not open this booklet until you are told to do so by the invigilator.
Write your name, Centre number and candidate number on the answer sheet in the spaces provided unless this has already been done for you.

There are **forty** questions in this paper. Answer all questions. For each question there are four possible answers, **A**, **B**, **C** and **D**. Choose the one you consider correct and record your choice in **soft pencil** on the separate answer sheet.
Read very carefully the instructions on the answer sheet.

INFORMATION FOR CANDIDATES

Each correct answer will score one mark.
A mark will not be deducted for a wrong answer.
Any rough working should be done in this booklet.

This question paper consists of **16** printed pages.

Mapwork

Questions 1 to 12 refer to the 1 : 50 000 map of Concession (Zimbabwe).

1. In which direction is the general flow of the Murowodzi river (grid square 7671)?

   A south westerly direction
   B northerly direction
   C westerly direction
   D north easterly direction

2. In which grid square do you find a dip tank, a reservoir and buildings?

   A 7865
   B 7570
   C 7874
   D 7168

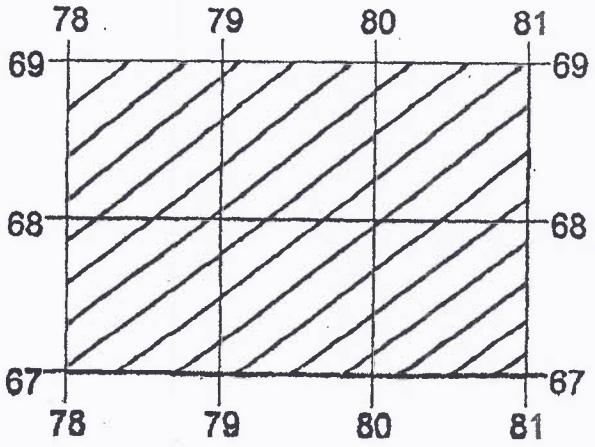
3. The feature found at grid reference 774741 is

   A a dam.
   B an ox-bow lake.
   C a seasonal marsh.
   D a reservoir.

4. What is the length of the aerodrome landing area in grid square 7673?

   A 600 metres
   B 800 metres
   C 1 000 metres
   D 1 200 metres

5. What map evidence suggests that the area of the map extract shown below is a mining area?

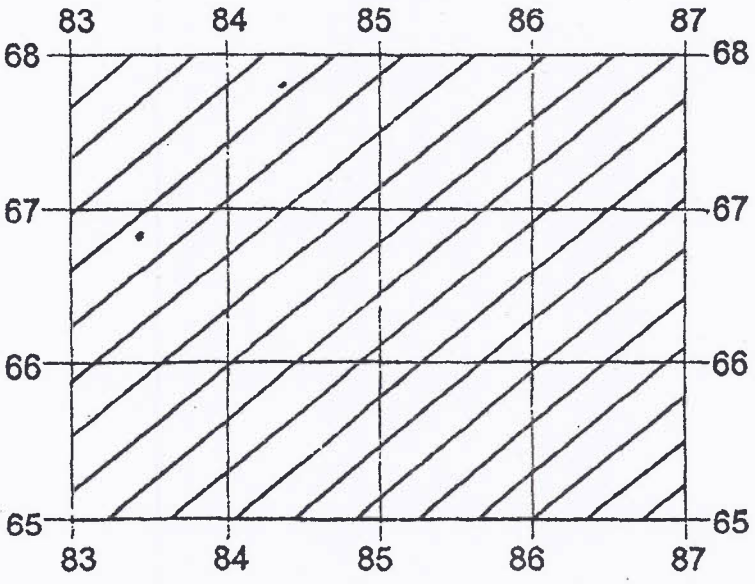


   A presence of a railway
   B presence of reservoirs
   C presence of quarries
   D presence of mine dumps

6. The bearing of the spot height (794647) from the trigonometrical station in grid square 8269 is

A 038°.
B 052°.
C 180°.
D 218°.

7. The shaded area shows a plantation.



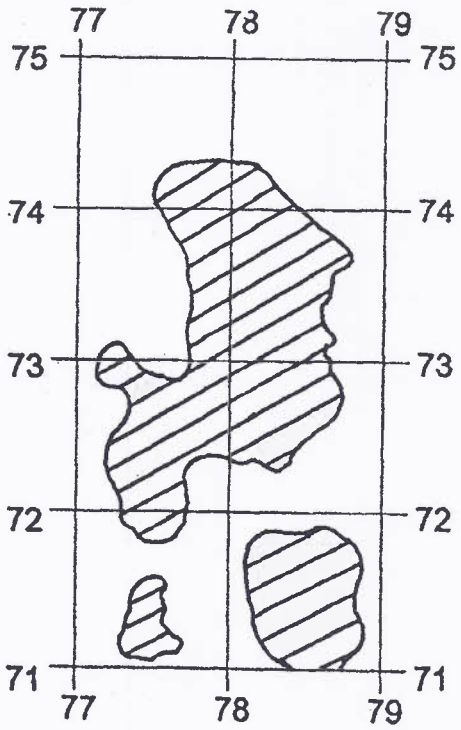
Which of the following suggests that irrigation is used in the area?

A seasonal marsh
B perennial rivers
C furrows
D boreholes

8. What is the altitude of the reservoir in grid square 7867?

A 1340 metres
B 1320 metres
C 1300 metres
D 1280 metres

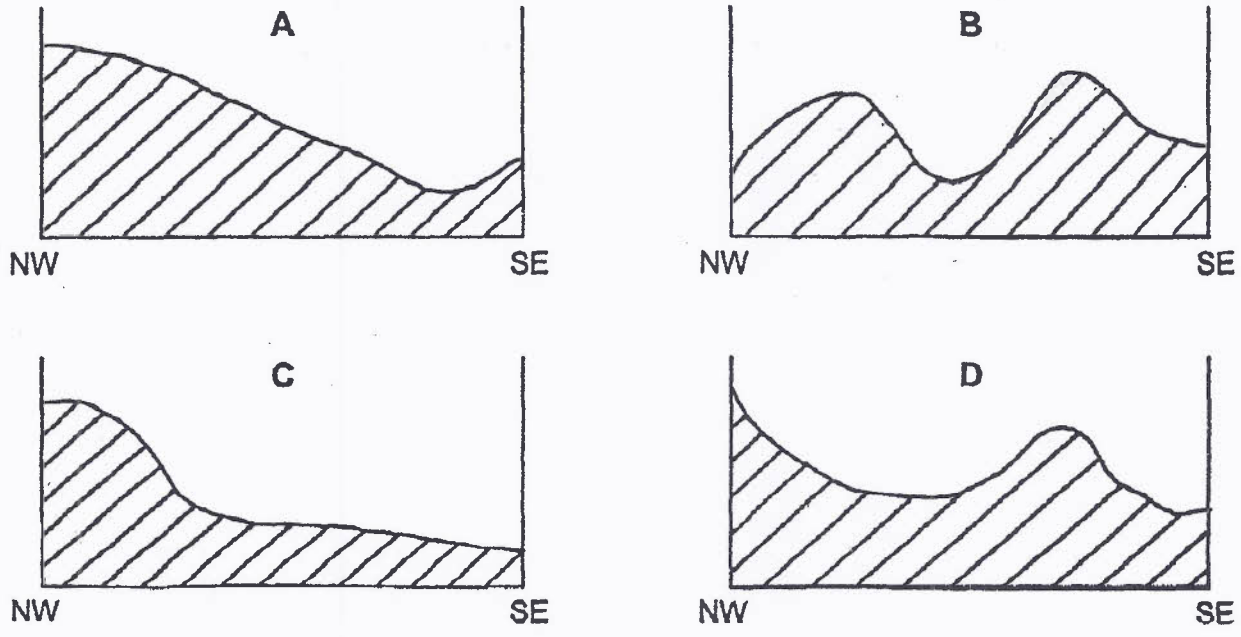
9. Study the map area shown.



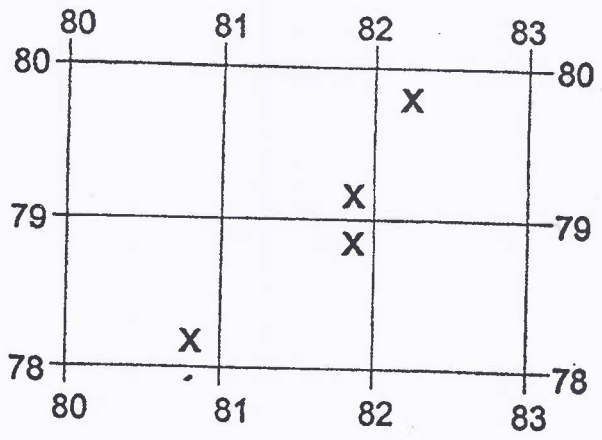
The shaded areas show

A medium bush.
B dense bush.
C sparse bush.
D very dense bush.

10. Which sketch section represents the land surface from the trigonometrical station in grid square 7871 to the spot height in grid square 8270?



11. The diagram shows four locations on the map where a type of activity takes place.



KEY: X = ACTIVITY

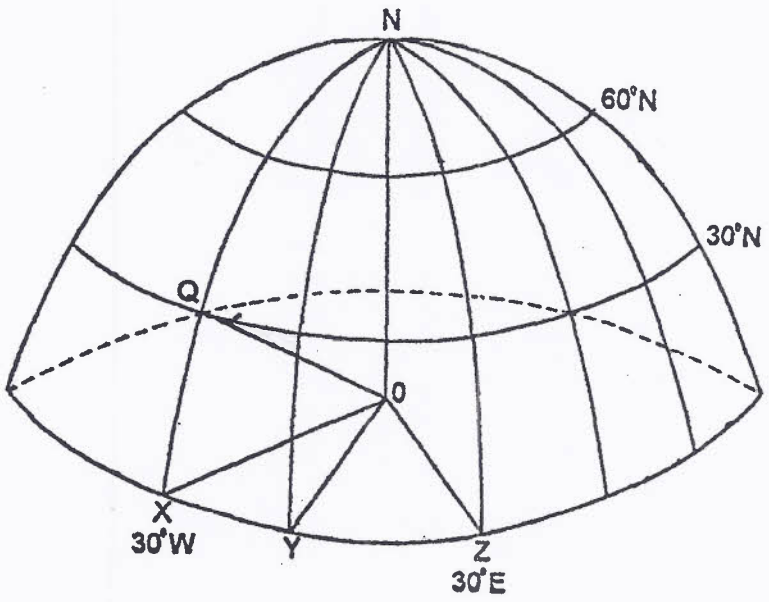
Which activity is taking place at the four locations?

A recreation
B education
C agriculture
D commercial

12. The settlement pattern of the staff quarters shown in grid square 8465 is

A nucleated.
B linear.
C scattered.
D circular.

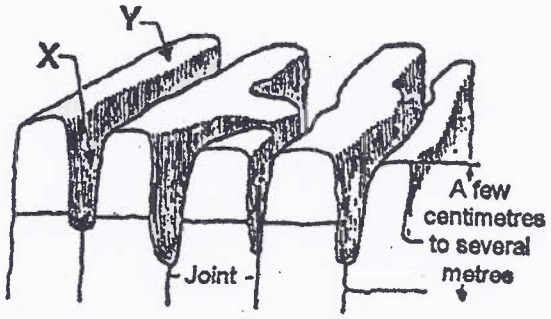
13. The diagram shows lines of latitude and longitude in the northern hemisphere.



Which one of the following angles shown on the diagram above is longitude 30°W?

A angle XOQ
B angle XOZ
C angle NOX
D angle XOY

14.



The diagram shows a landscape formed by weathering in limestone areas.

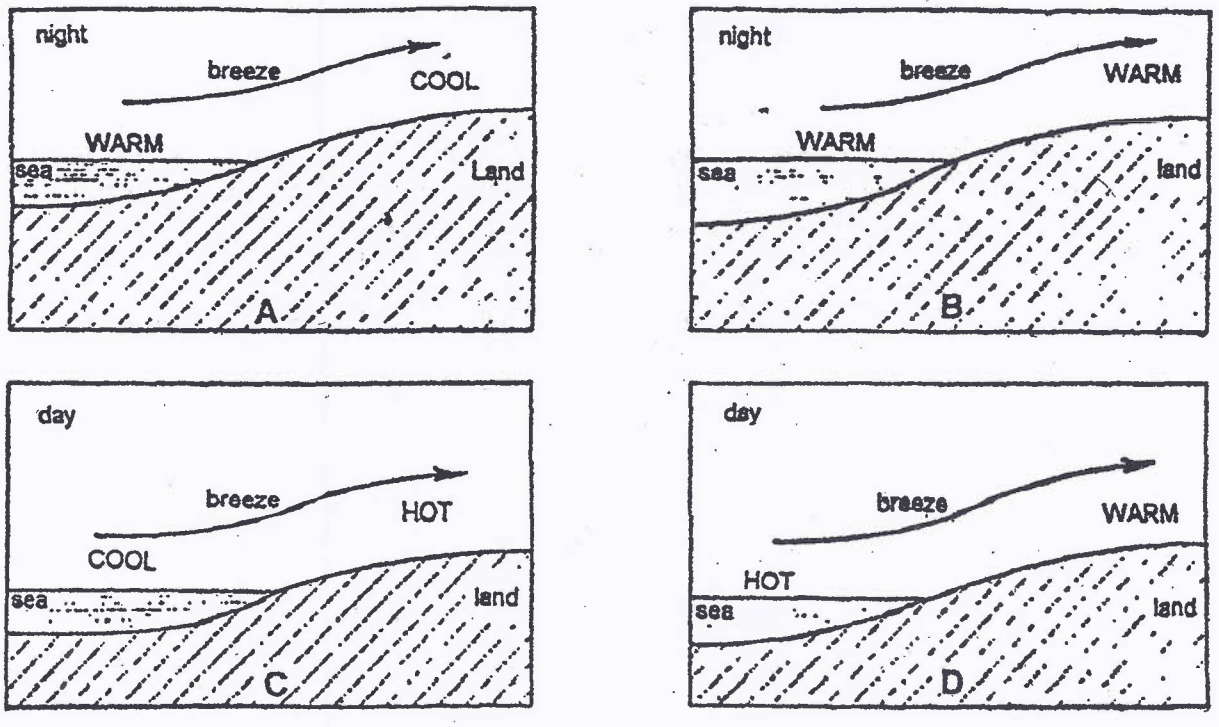
The features marked X and Y are called

A rift valley and horst.
B grikes and clints.
C anticlines and synclines.
D wadis and playas.

15. Students visiting a volcanic area saw a fountain of hot water and steam ejected into the air at regular intervals. What did they see?

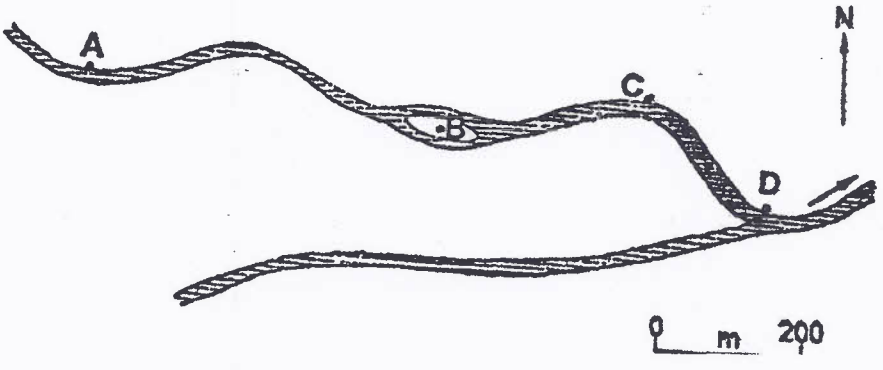
A a geyser
B a crater lake
C an ash cone
D a hot spring

16. During a period of generally calm, settled weather, a coastal area experiences a breeze blowing inland from the sea for several hours.



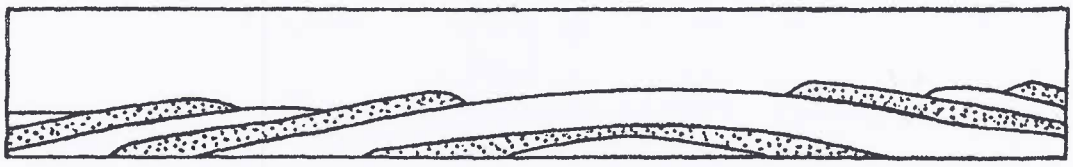
Which diagram A, B, C or D shows the conditions which cause the breeze?

17. The diagram shows a river flowing across the valley stage.



At which one of the positions marked A, B, C or D is a river cliff likely to develop?

18.



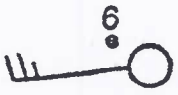
The above cross-section shows

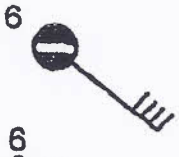
A an eroded anticline.
B a rejuvinated syncline.
C a rift valley.
D river terraces.

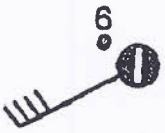
19. 'She wakened to hear the rain lashing against the windows. During the night the South West wind had strengthened to some 40 knots, the temperature had fallen to 6°C and the sky was almost covered.'

Which of the stations **A, B, C** or **D** represents the description?

A 

B 

C 

D 

20. Dykes, sills and calderas are all features of

A flood plain erosion.
B land reclamation.
C volcanic activity.
D earth movements.

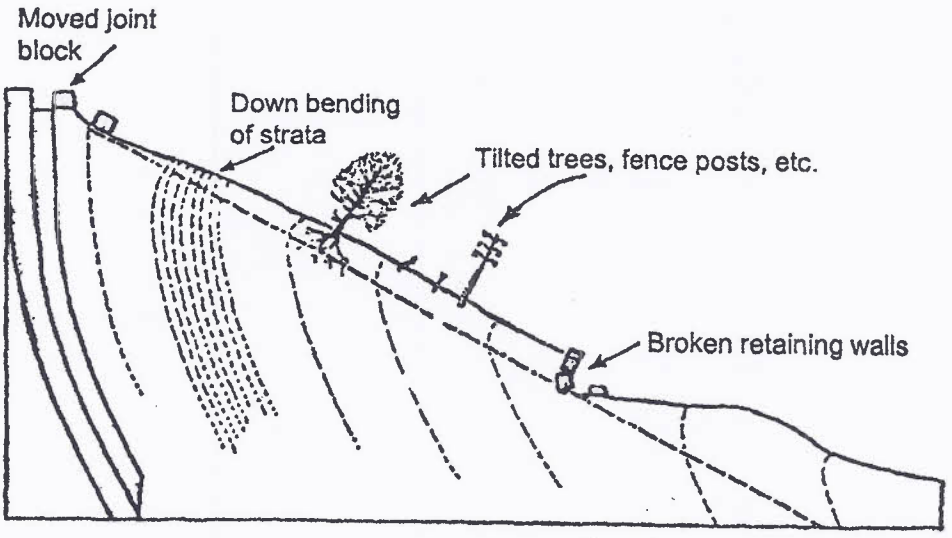
21. What instrument is used to measure the relative humidity of the air?

A wet and dry bulb thermometer
B rain gauge
C mercury barometer
D maximum and minimum thermometer

22. The amount of tree-cover in savanna grasslands tends to increase towards the equatorial zones because of

A increasing average monthly temperatures.
B a shorter dry season.
C a decrease in the number of herbivores.
D decreasing annual rainfall.

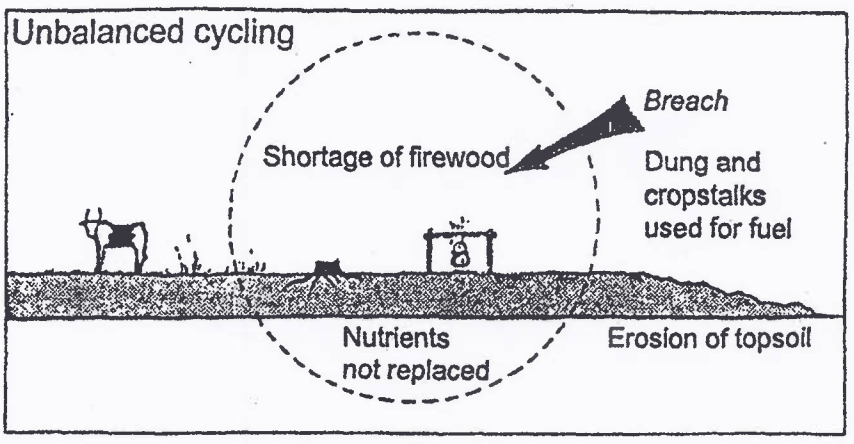
23.



The situation shown in the diagram above is caused by

A lava flow.
B alluvial deposition.
C soil creep.
D wind erosion.

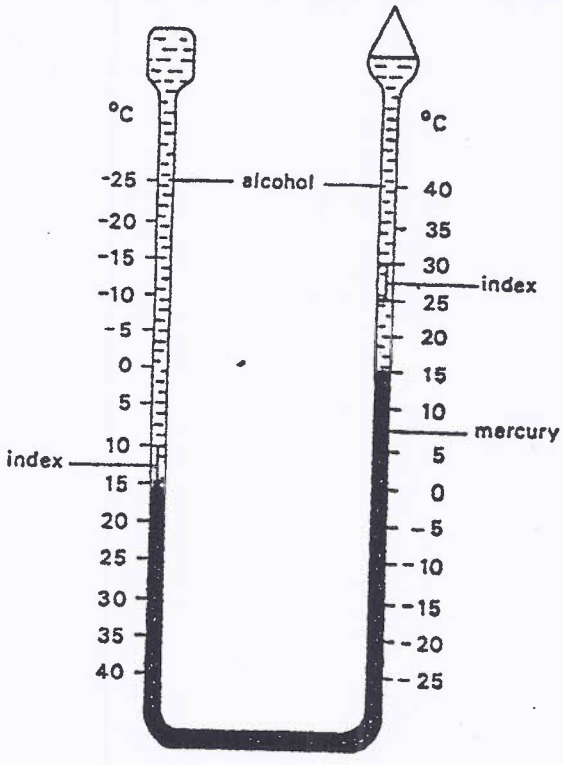
24. Study the diagram below.



A solution to the problem of unbalanced nutrient cycling would be

A afforestation.
B contour ploughing.
C gully filling.
D deforestation.

25. A student went to read the maximum-minimum thermometer at a school weather station and found it as shown in the diagram.

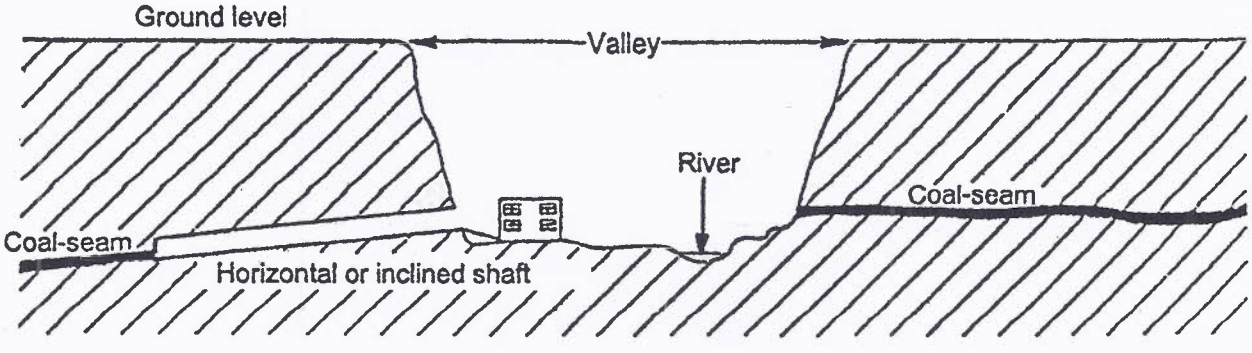


What was the mean (average) temperature for the station?

A 10°C
B 15°C
C 20°C
D 25°C

Economic Geography

26.



The type of mining shown in the diagram above is

A adit.
B alluvial panning.
C opencast.
D shaft.

27. All the following raw materials required for the steel industry at Redcliff are locally available **except**

A iron ore.
B limestone.
C manganese.
D coking coal.

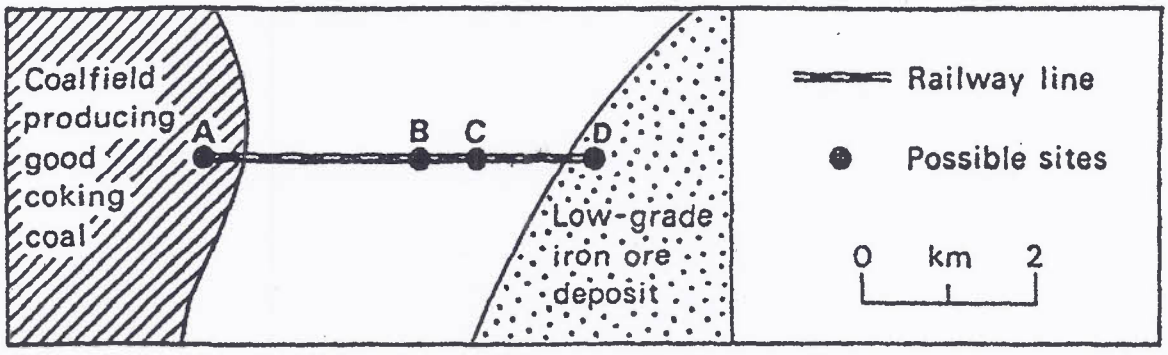
28. A general fall in prices of agricultural commodities on the world market would have the most effect on a

A shifting cultivator.
B plantation (estates) farmer.
C peasant farmer.
D nomadic herdsman.

29. Africa has developed less than 30% of her estimated hydro-electric power potential. This is because of

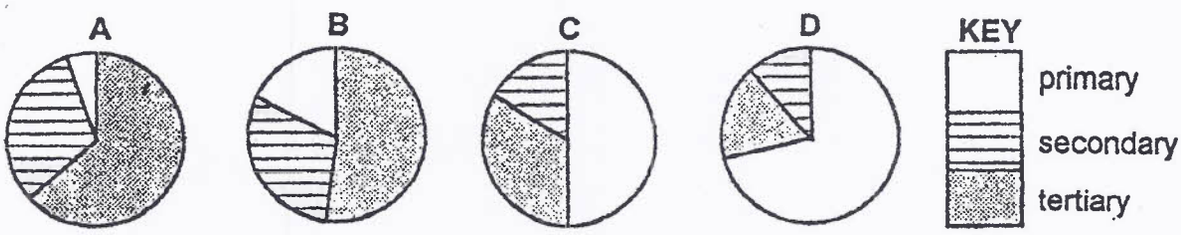
A insufficient demand for electricity.
B abundant reserves of coal.
C the seasonal flow of many rivers.
D lack of suitable dam sites.

30. The diagram shows four possible sites for a new steelworks. The production of steel at the new works requires twice as much iron ore as coal.



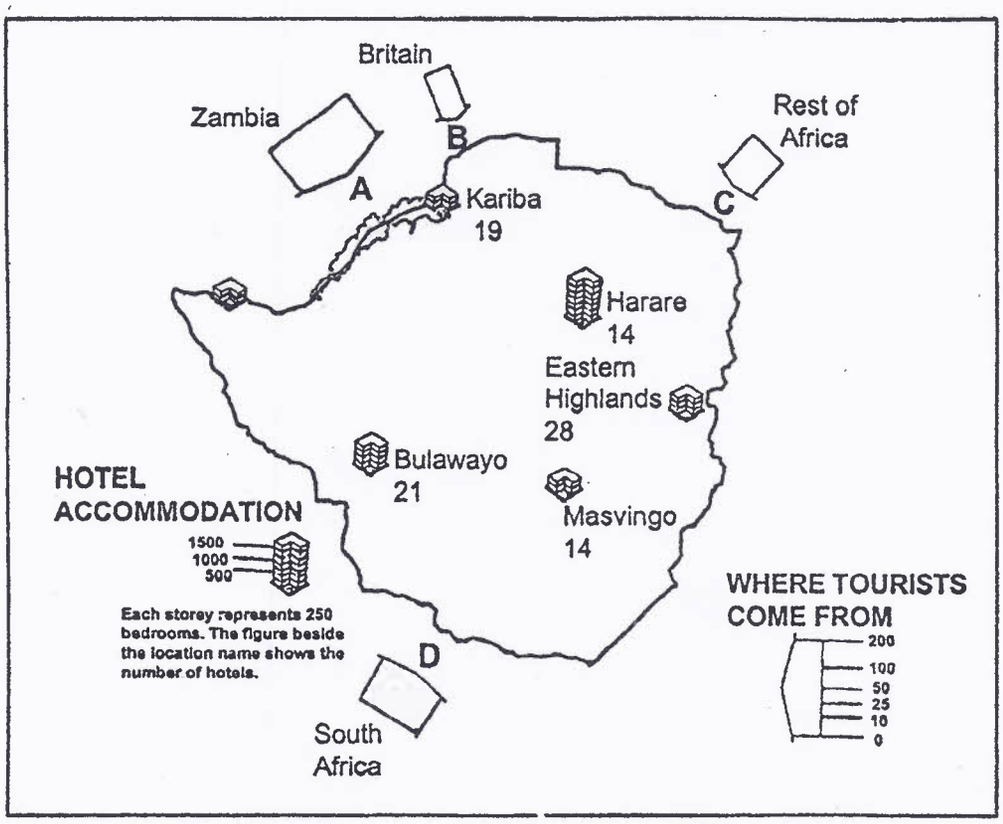
If the cost of transporting iron ore and coal is the same, at which site **A, B, C or D** will the new steelworks be built in order to maximise transport costs for the raw materials?

31. Study the pie-charts showing the proportions of primary, secondary and tertiary employment in four countries.



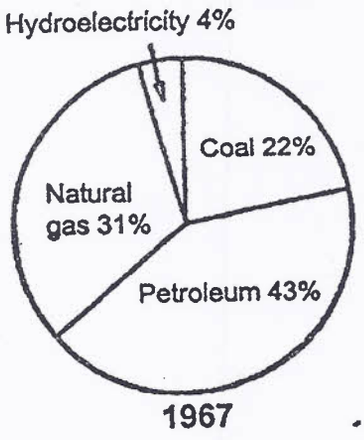
Which country **A**, **B**, **C** or **D** is the **most** developed?

32. The map shows the numbers of tourists, from selected countries, who visited Zimbabwe recently.

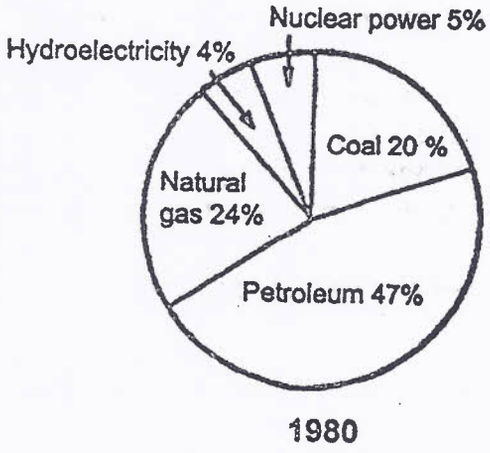


Which source country **A**, **B**, **C** or **D** contributed 100 000 tourists?

33. Study the diagrams which show changes in energy sources in the U.S.A. between 1967 and 1980.



1967



1980

Which energy source showed the highest increase between 1967 and 1980?

A natural gas
B hydroelectricity
C nuclear power
D petroleum

Population, Settlement and Trade.

34. The number of people in an area divided by the size of the area is a measure of

A overpopulation.
B life expectancy.
C population density.
D birth rate.

35. The table shows the results of a survey carried out in a developing country to find out the reasons why heads of households were moving into the city.

HEADS OF HOUSEHOLD %	REASON FOR MOVING INTO THE CITY
68	X
13	to start a business
12	to join a member of the family
4	for education
3	because of a family quarrel
100	

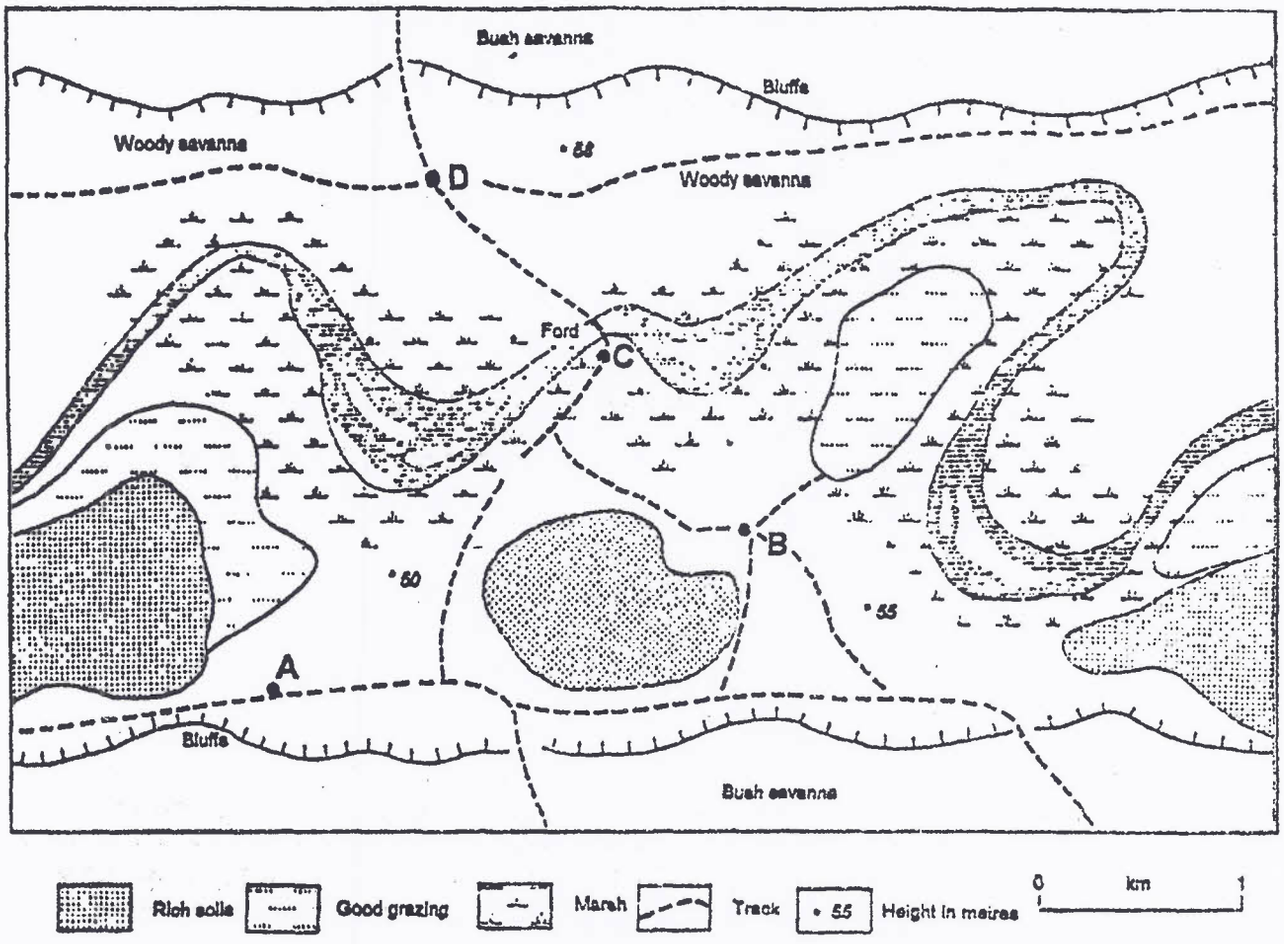
Reason X is to

A find cheaper housing.
B find entertainment.
C be nearer to a hospital.
D find paid employment.

36. Which one of the following provisions by a government would have the **greatest** impact in improving the quality of life in squatter settlements?

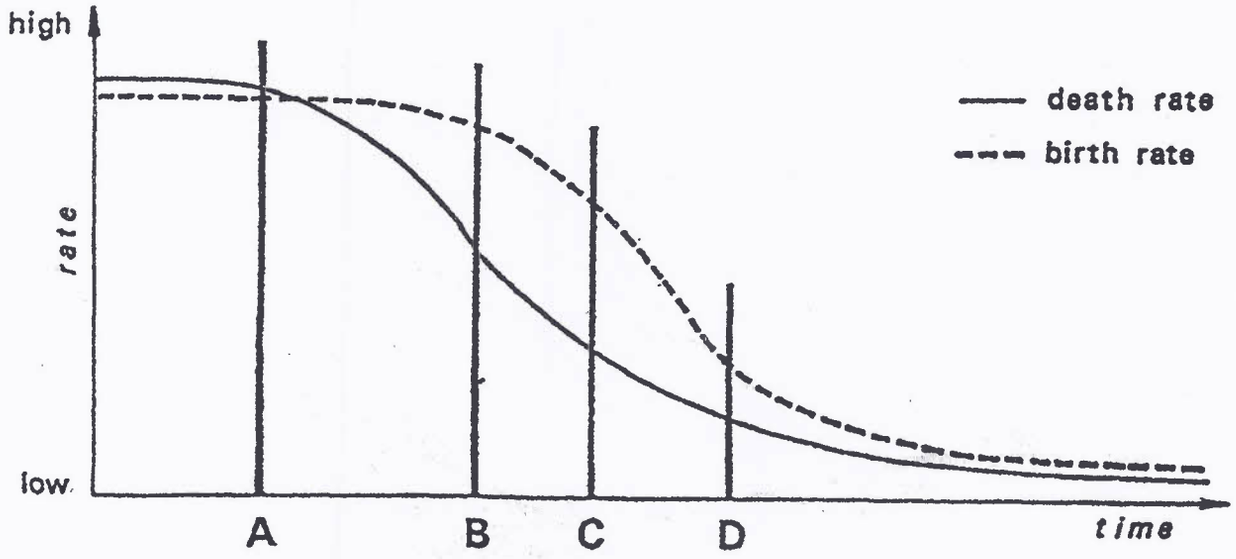
A a bus service into the city centre
B clean and safe water supply
C shops for renting
D recreational facilities

37. The map shows the location of four proposed sites for a new village.



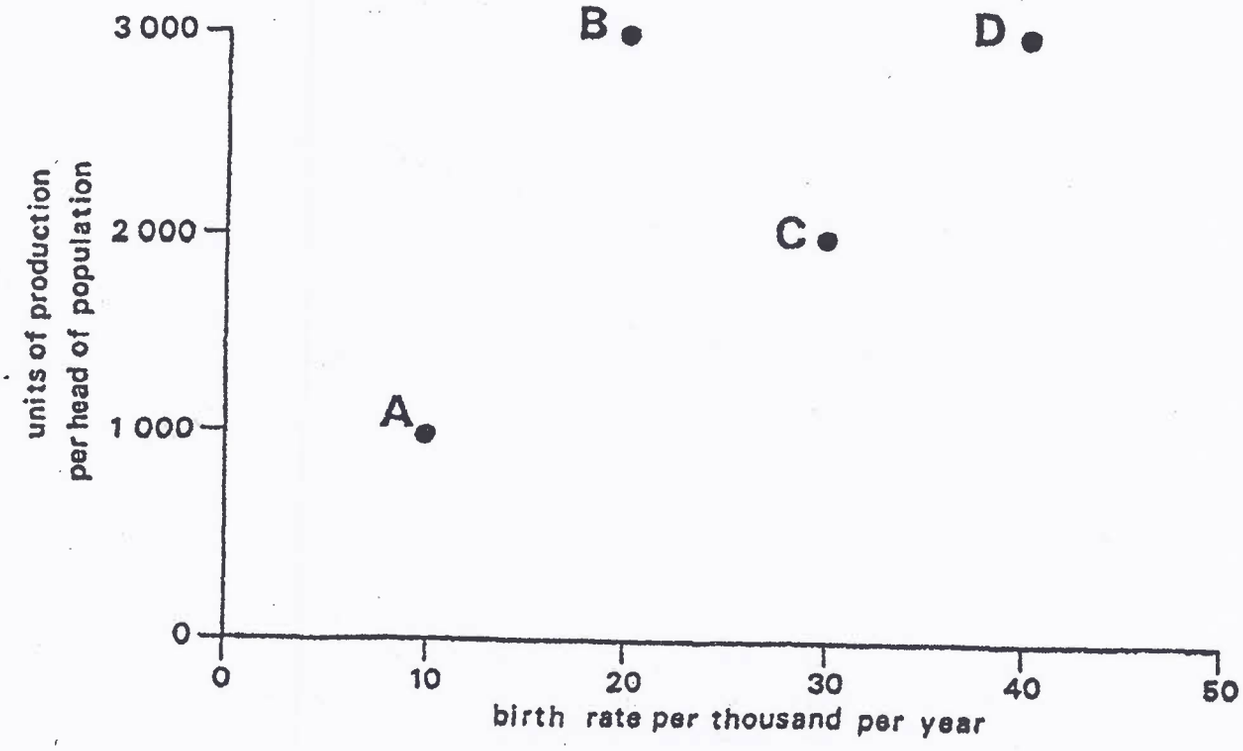
Which location **A**, **B**, **C** or **D** is the most suitable?

38. The graph shows changes in the birth and death rate in a country over a long period.



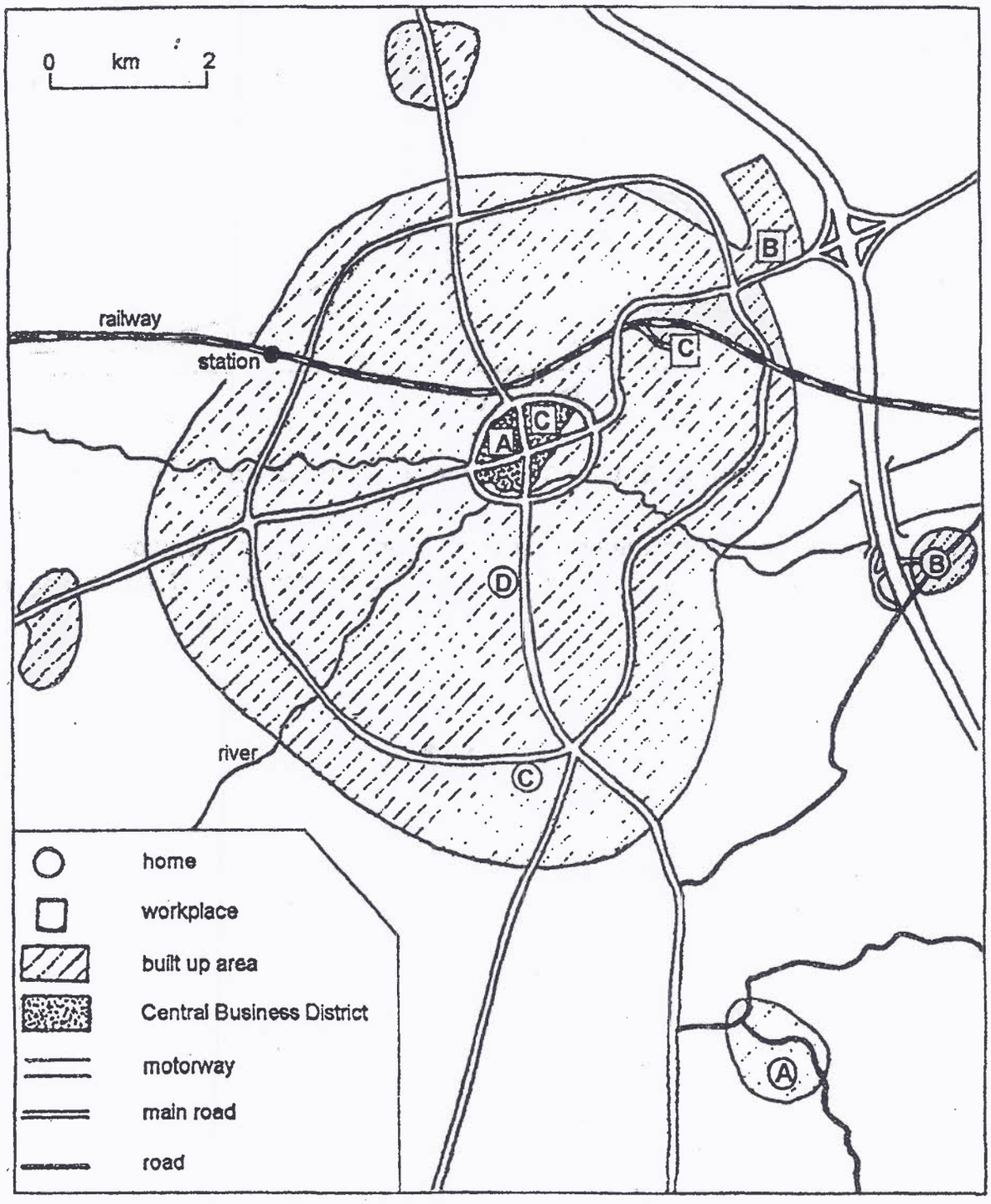
At which stage A, B, C or D was the total population growing fastest?

39. The diagram shows the units of production per head of population and birth rates for four countries. The death rate is the same for all the countries.



Which country A, B, C or D is least likely to suffer from problems of over population?

40. The map shows four possible locations of Mrs Dube's home and workplace in a city.



Mrs Dube is the manageress of a department store and lives in a modern detached house with a large garden. Which letter **A, B, C** or **D** is most likely to represent both her workplace and home?

GEOGRAPHY **NOVEMBER 2000**

2248/01

POSSIBLE ANSWERS

MAPWORK (1:50 000 CONCESSION)

1.	D	2.	C
3.	C	4.	B
5.	D	6.	D
7.	C	8.	C
9.	B	10.	D
11.	A	12.	A

ECONOMIC GEOGRAPHY

26.	A	27.	D
28.	B	29.	A
30.	D	31.	A
32.	D	33.	C

PHYSICAL ENVIRONMENT

13.	D	14.	B
15.	A	16.	C
17.	C	18.	A
19.	D	20.	C
21.	A	22.	B
23.	C	24.	A
25.	C		

POPULATION, SETTLEMENT AND TRADE

34.	C	35.	D
36.	B	37.	B
38.	C	39.	B
40.	A		

/SK
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ZIMBABWE SCHOOL EXAMINATIONS COUNCIL

General Certificate of Education Ordinary Level

GEOGRAPHY 2248/2

PAPER 2

Monday 30 OCTOBER 2000 Morning 2 hours 30 minutes

Additional materials:
Answer paper

065681

TIME 2 hours 30 minutes

INSTRUCTIONS TO CANDIDATES

Write your name, Centre number and candidate number in the spaces provided on the answer paper/answer booklet.
Answer **four** questions. Each question carries 25 marks.
Answer **one** question from each of Sections **A, B** and **C** and **one other question** from any section.
Write your answers on the separate answer paper provided.
If you use more than one sheet of paper, fasten the sheets together.

INFORMATION FOR CANDIDATES

The number of marks is given in brackets [ ] at the end of each question or part question.
Insert 1 contains Photograph A for use with Question 3.
Insert 2 contains Photograph B for use with Question 4.
Sketch maps and diagrams should be drawn whenever they serve to illustrate an answer.

This question paper consists of 12 printed pages and 2 inserts.

[Turn over

Section A (Physical Environment)

Answer at least one question from this section.

1. (a) (i) Name the three classes of rocks. [3]

(ii) With the aid of labelled diagrams, explain how the structure of rocks influences the formation of one of the following:

Castle kopjes
Underground caves
Trellis drainage [6]

(iii) What advice and information would you give to a council to develop an area that has experienced faulting? [5]

(b) Fig. 1 below shows a landform found in hot deserts.

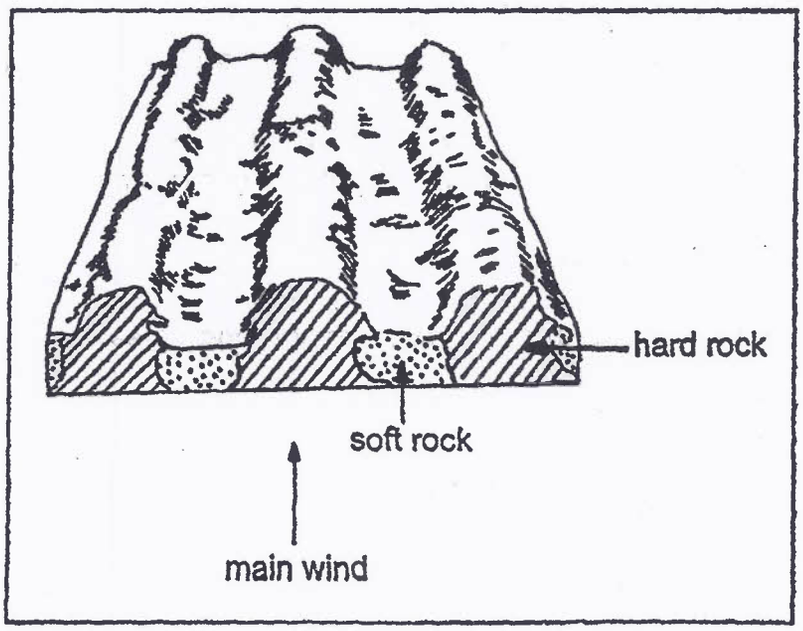


Fig. 1

(i) Describe how the landform is formed. [5]

(ii) Outline the changes which are likely to occur to the landform over a long period of time. [2]

(iii) Strong winds pose problems for people living in hot deserts. Explain the problems associated with these winds. [4]

2. (a) Study Fig. 2 below which shows the hydrological cycle.

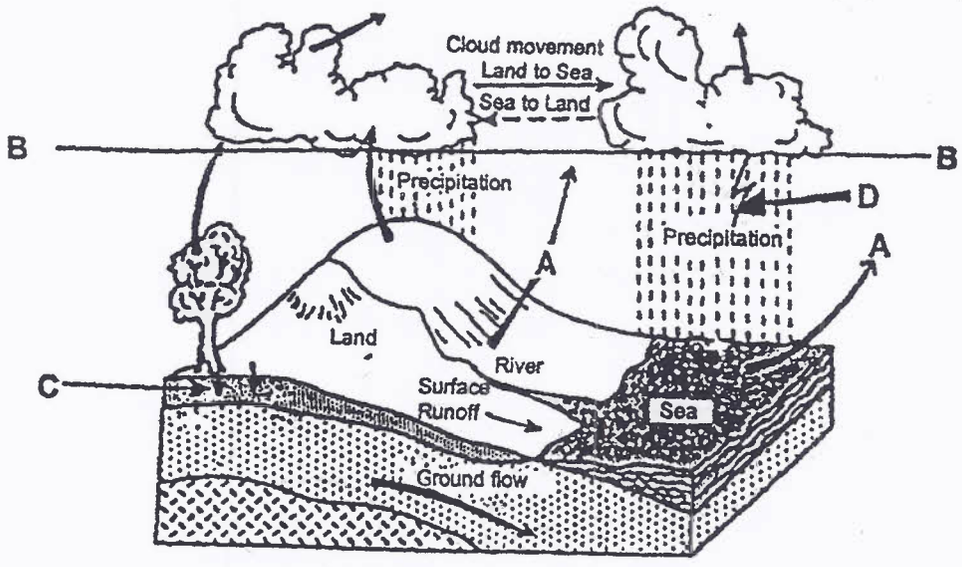


Fig. 2

(i) Name the processes marked **A**, **B** and **C** and symbol **D**. [4]

(ii) Explain how each of the processes marked **A** and **B** lead to the formation of rainfall. [6]

(b) Suggest the benefits to people and the environment arising from cloud seeding and air pollution control. [7]

(c) Study Fig. 3 showing pressure patterns over Africa in July.

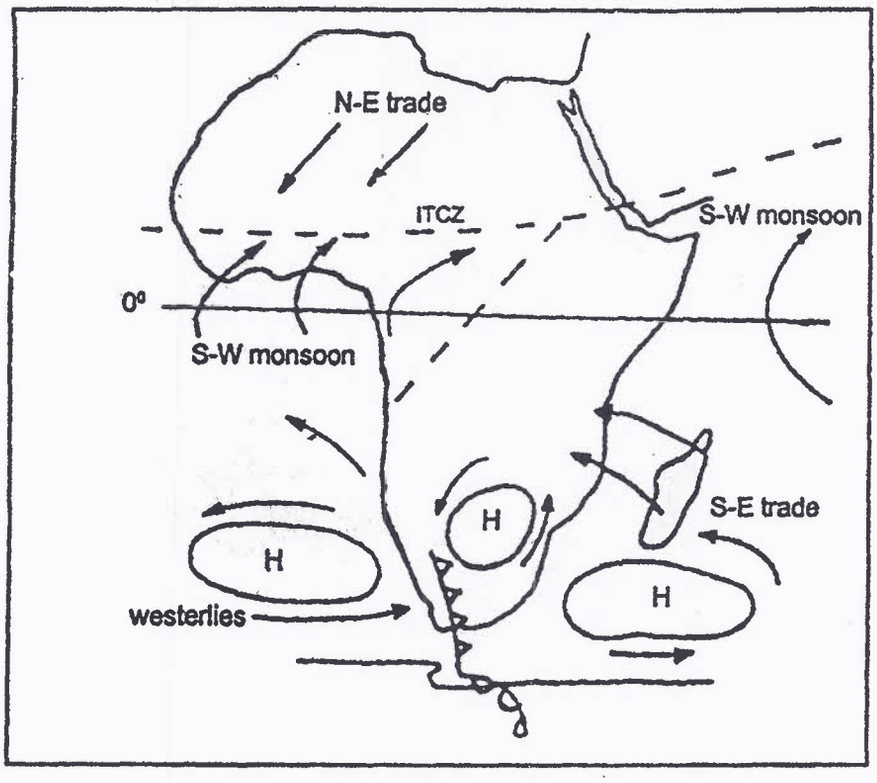


Fig. 3

(i) Describe and explain the pressure patterns shown on Fig. 3. [6]

(ii) State two weather conditions associated with high pressure systems. [2]

3. (a) Study Photograph A (Insert I) showing an environmental problem.

(i) Describe the scene in the photograph. [5]

(ii) Explain the causes of the problem shown in photograph A. [5]

(b) In many places in Africa, the conservation of the environment has involved the setting aside of land for wildlife management schemes.

(i) Using the diagram below, state the inputs and outputs of such schemes.

INPUTS	PROCESSES	OUTPUTS
1.	ADAPTATION	3.
2.	RECLAMATION	4.

[4]

(ii) Explain how wildlife management improves the conservation of the environment. [4]

(iii) You are to give a speech to the Department of Natural Resources on the failure of many conservation programmes in the rural areas. Briefly describe the issues which you will raise in your speech. [7]

Section B (Economic Geography)

Answer at least one question from this section.

4. (a) Study Photograph B (Insert 2) showing a rural homestead.

(i) Describe the uses of resources shown in the photograph. [5]

(ii) Explain the problems associated with the method of cooking shown. [3]

(iii) What measures would you recommend to such communities to conserve energy resources? [4]

(b) Study Fig. 4 which shows fishing grounds in South Africa.

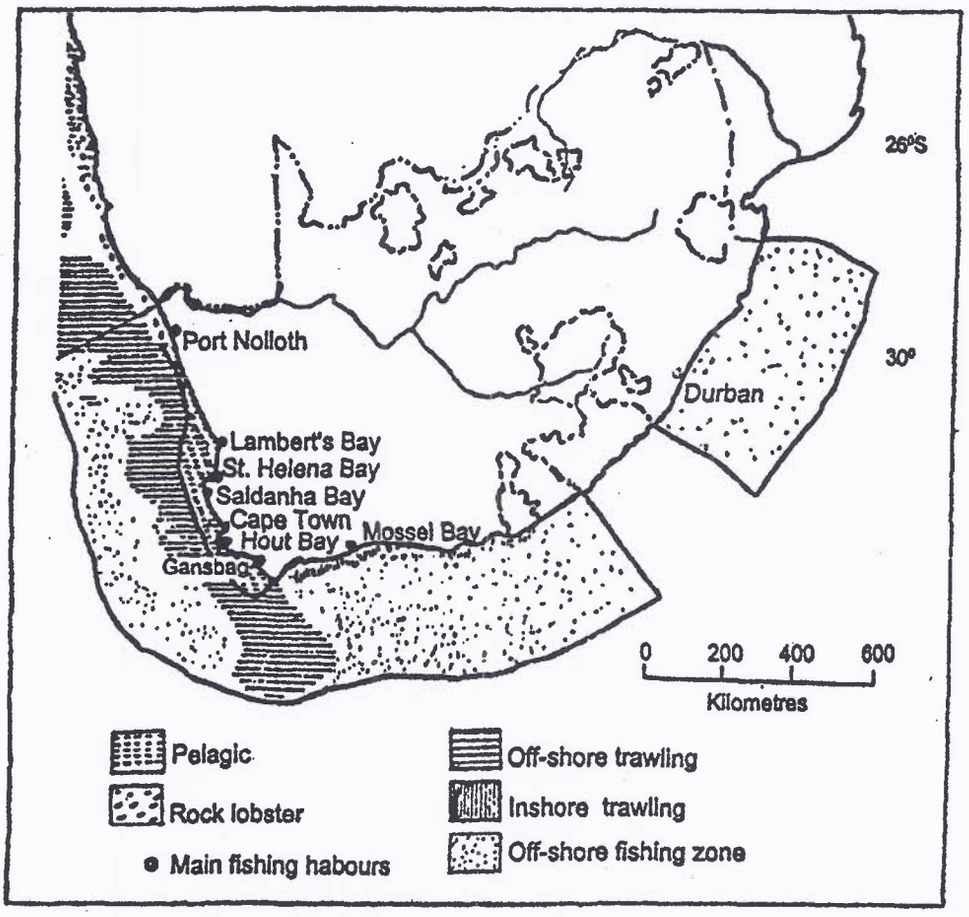


Fig. 4

(i) Describe and explain the distribution of fishing grounds shown. [7]

(ii) Explain the advantages to South Africa of producing a wide variety of fish. [6]

ZIMBABWE SCHOOL EXAMINATIONS COUNCIL

General Certificate of Education Ordinary Level

GEOGRAPHY 2248/2

PAPER 2
INSERT

Monday **30 OCTOBER 2000** Morning 2 hours 30 minutes

Instructions to candidates.

This insert contains Photograph A for use with Question 3(a).

This insert consists of 2 printed pages.

[Turn over

Photograph A INSERT 1

ZIMBABWE SCHOOL EXAMINATIONS COUNCIL

General Certificate of Education Ordinary Level

GEOGRAPHY 2248/2

PAPER 2
INSERT

Monday 30 OCTOBER 2000 Morning 2 hours 30 minutes

Instructions to candidates.

This insert contains Photograph B for use with Question 4(a).

This insert consists of 2 printed pages.

[Turn over

Photograph B INSERT 2

5. (a) In a field study of a farm, a geography class obtained the following results on the natural conditions:

Soil	deep, sandy loams
pH	slightly acidic (6)
Rainfall	800mm, seasonal
Temperature	Summer 21°C, Winter 18°C
Vegetation cover	less than 30%
Pests and diseases	Insects, weeds, fungi

How would this information assist a farmer decide on

(i) the crops to grow, [2]

(ii) farm inputs, [4]

(iii) conservation measures? [2]

(b) With reference to a named example in Africa, describe the advantages and disadvantages of pastoral nomadism. [6]

(c) The table below gives statistics on maize production in Zimbabwe from 1992 to 1997.

1992 - 1993	12 600 tonnes
1993 - 1994	1 350 000 tonnes
1994 - 1995	1 171 000 tonnes
1995 - 1996	67 600 tonnes
1996 - 1997	932 000 tonnes

(Source: CSO 1997)

(i) Describe the trends shown on the table and suggest their possible effects on food security in the country. [7]

(ii) You are an Agritex Officer and you have submitted to the government a proposal to expand co-operative agriculture in the communal areas of Zimbabwe. Justify your proposal. [4]

6. (a) (i) Define the term beneficiation. [2]

(ii) With reference to Fig. 5 below describe the process of oil refining shown. [5]

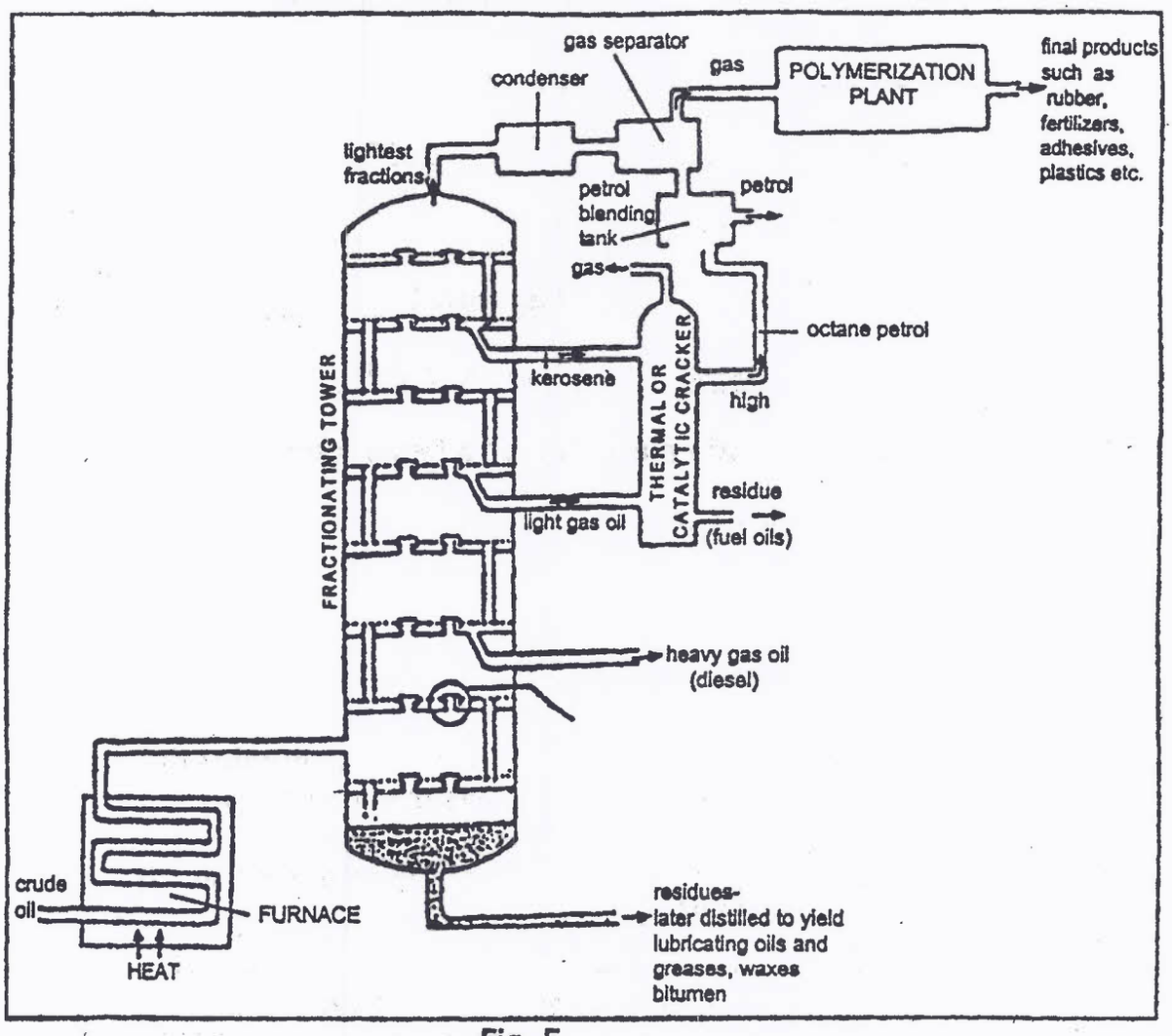


Fig. 5

(iii) Choose two by-products of crude oil and state two uses of each. [2]

(b) Fig. 6 below shows three industries with close links to one another.

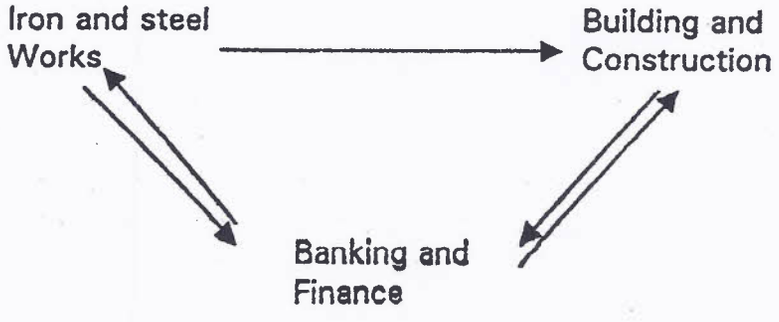


Fig. 6

(i) Describe and explain the relationships between the three industries. [5]

(ii) Explain the uses of raw materials required in the production of iron and steel. [4]

(c) State and explain the policies which you would recommend in establishing new industries and expanding existing ones in your country. [7]

Section C (Population, Settlement and Trade)

Answer at least one question from this section.

7. (a) Fig. 7 shows the functions of a multi-storey building in the Central Business District (CBD) of a city.

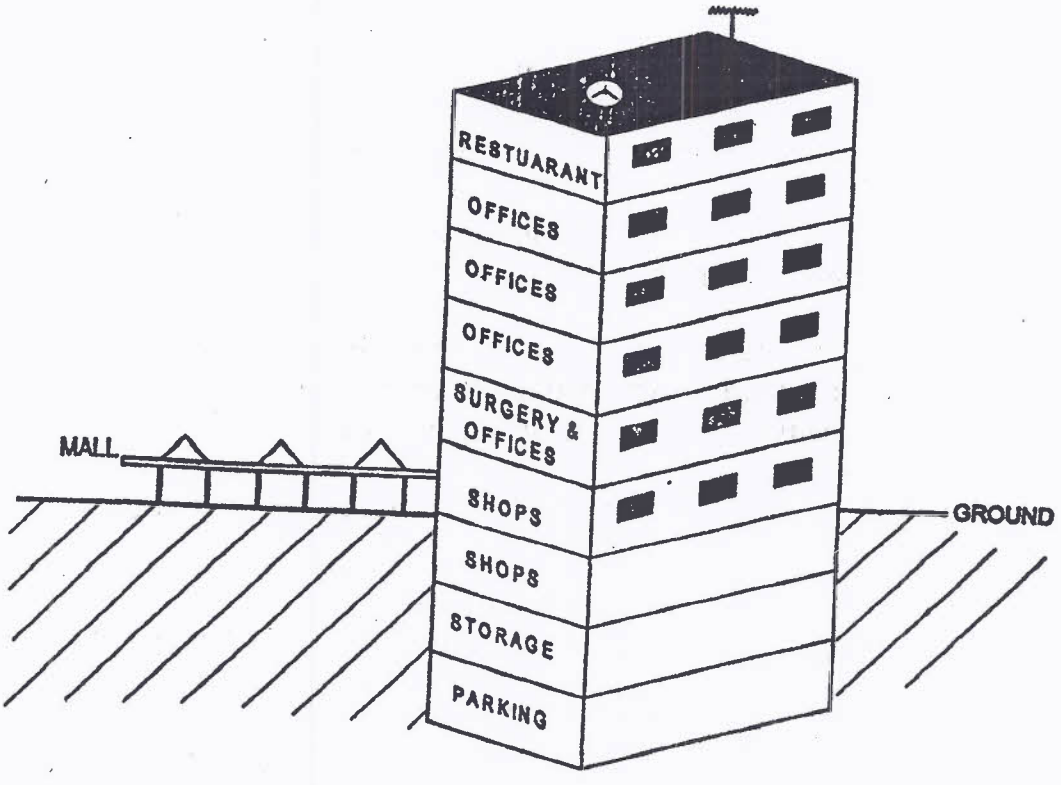


Fig. 7

(i) Describe and explain the functions shown. [6]

(ii) A town council decides to construct more roads and clinics while the residents want more houses. Put forward arguments in support of both the council and the residents. [7]

(b) **Fig. 8** below shows part of Harare's "sphere of influence" or 'urban field'.

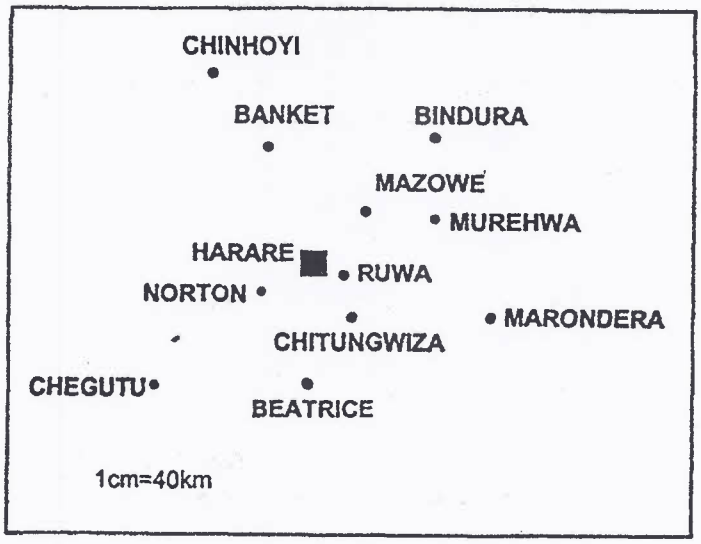


Fig. 8

(i) Describe Harare's "sphere of influence". [3]

(ii) Describe the benefits and problems arising from Harare's "sphere of influence". [5]

(iii) With reference to a town or city you have studied in Zimbabwe, describe the differences between **High density** and **Low density** residential areas. [4]

8. (a) The table below gives information on the population of two countries **A** and **B**.

Population characteristics	Country **A**	Country **B**
Population growth	0,1%	3%
Infant mortality	12 per 1000	66 per 1000
Active population	57 million	7 million
Unemployment	11%	40%
Economic growth	3%	1%
Life expectancy	75 years	48 years

(i) State which country represents developed countries and give reasons for your answer. [7]

(ii) Using the table only, explain the causes of unemployment for both countries. [4]

(b) Explain why there are low population densities in the lowveld areas of Zimbabwe. [7]

(c) Explain the relationship between rising poverty and declining resources in Southern Africa. Make recommendations to solve these problems. [7]

9. (a) **Fig. 9** shows total populations and the Gross Domestic Products (GDPs) for the SADC countries.

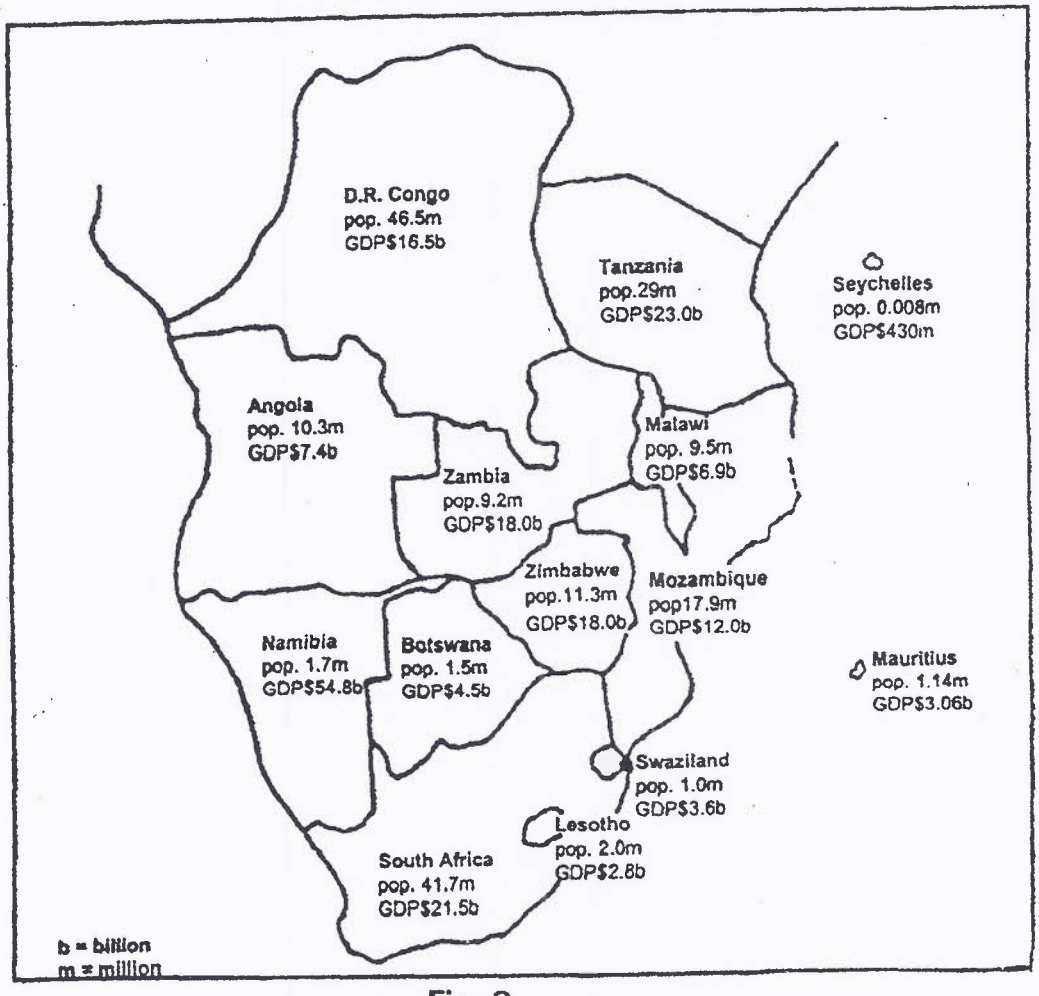


Fig. 9

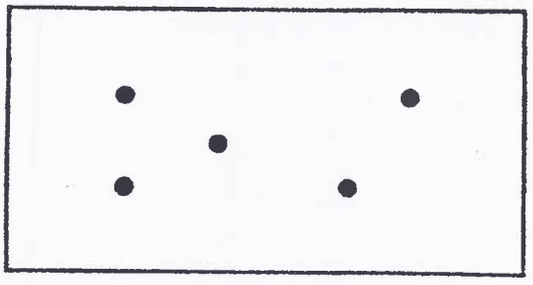
(i) What does the abbreviation SADC stand for? [1]

(ii) Explain how the variations in GDP may promote or hinder trade within the region. [6]

(iii) An expert has recommended that the SADC must increase its trade links with the European Union (E.U.). In your opinion, what are the merits and demerits of such a recommendation? [7]

(iv) With reference to Zimbabwe, explain the measures the country has put in place to boost international trade. [4]

(b) Points in the diagram below are to be connected by transport routes.



(i) On your answer paper draw and label a topological map with a beta index of 1.6 (beta index $= \frac{E}{N}$) [5]

(ii) State two advantages of topological maps. [2]

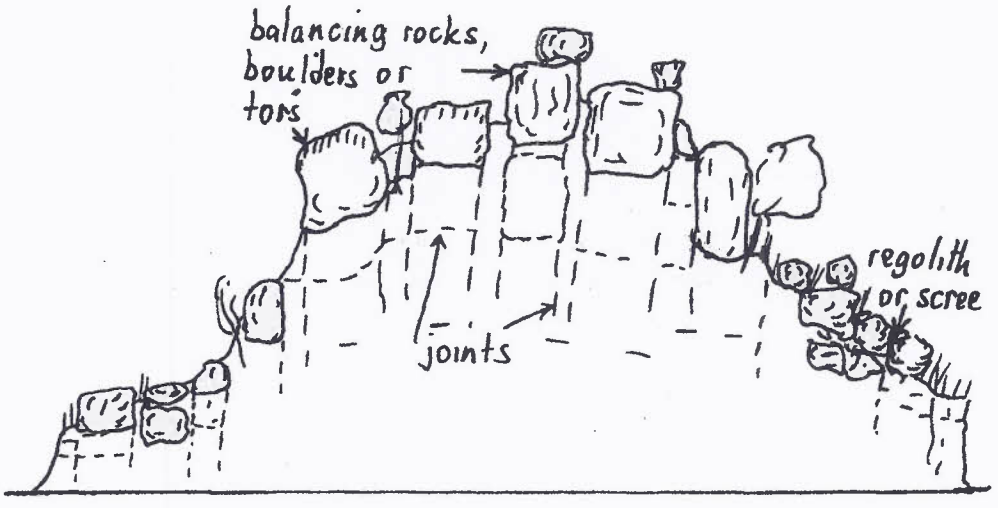
GEOGRAPHY NOVEMBER 2000

2248/02

POSSIBLE ANSWERS

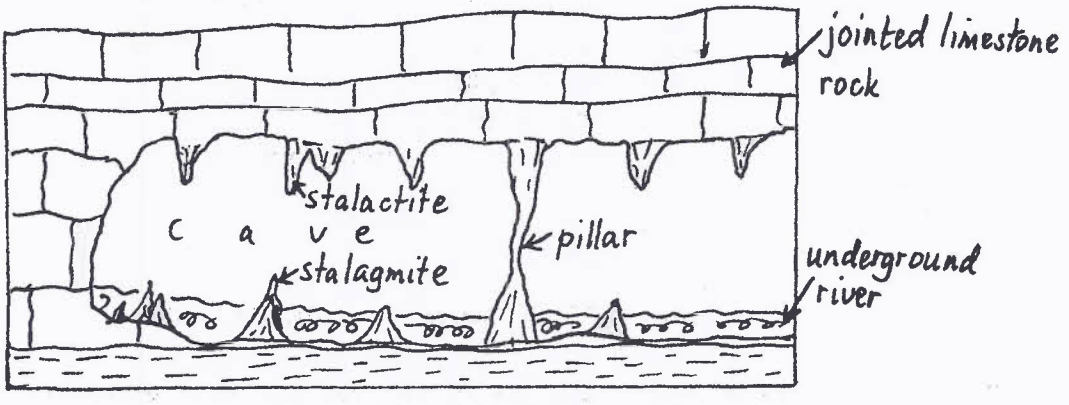
1. (a) (i) Sedimentary, metamorphic and igneous
1 mark each 3 marks

(ii) Castle kopjes



- well jointed granite rock
- rectangular/block jointing pattern
- selective deep chemical weathering along the joints
- stripping of regolith to expose inselberg

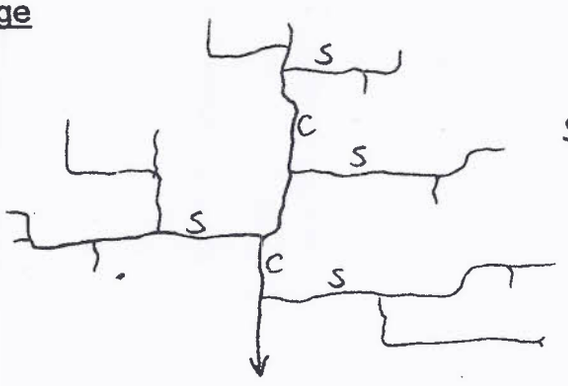
or Underground caves



- water containing calcium bicarbonate drips from the cave roof. Wher the water evaporates it leave behind calcium carbonate in the form of

stalactites, stalagmites and pillars.
- well jointed limestone rock
- numerous bedding surfaces
- solution along joints
- widening of joints to form caves

or <u>Trellis drainage</u>



C - Consequent stream
S - subsequent stream

- rectangular / grid faulting
- rivers exploit fault lines
- rapid headward erosion
- alternate bands of hard and soft rock
- folding may also result in trellis drainage

1 mark each

Reserve 2 marks for diagram 6 marks

(iii)
- development of tourism, HEP, water sport/ recreation at water falls
- mining can be promoted or becomes difficult
- possibility of earth quakes; reinforcing of buildings
- and use of light materials for building
- problems of setting up communication networks due to rugged terrain
- use of flexible piping
- farming on valley floors
- tea, coffee, timber on highlands

1 mark each

(Reference to earthquakes - maximum of 2 marks) 5 marks {14}

(b) (i)
- Heterogeneous rock/vertical bands of hard and soft rocks.
- Selective weathering and erosion.
- Wind abrasion wears away weaker rock at a faster rate.

- Formation of a ridge and furrow landscape.

1 mark each 5 marks

(ii)
- ridges are reduced in size and height
- ridges disappear
- extensive erosion plain or peneplain is formed
- rock debris on surface
- widening of furrows and narrowing of ridges

1 mark each 2 marks

(iii)
- shifting sand dunes bury settlements, roads, water sources and farmland
- dust storms reduce visibility casing accidents and diseases.
- sand blasting destroys crops, leads to corrasion, injury and makes it difficult to travel
- wind erosion opens oases and creates badlands.

1 mark each 4 marks 11

[25]

(a) (i)
A - Evaporation
B - Condensation
C - Infiltration/seepage/sinking
D - Lightning

1 mark each 4 marks

(ii)
- evaporation increases water vapour in the atmosphere
- when moist air rises it expands
- adiabatic cooling of air to dew point
- air becomes saturated
- presence of hygroscopic condensation nuclei or carbon particles helps condensation and cloud formation
- growth of rain drops and falling as rain.

1 mark each 6 marks 10

(b)
- increased water supply
- more vegetation cover
- more pasture
- reduced soil erosion due to increased vegetation cover
- cleaner air
- healthier people/Reduced respiratory diseases and skin cancer
- conservation of biodiversity
- more crop yields
- more food
- reduced dirt and dust, etc.
- reduced risk of hailstorms
- less acid rain
- reduced greenhouse effect

1 mark each 7 marks 7

(c) (i) **Description**

- high pressure over the Atlantic and Indian oceans and Southern Africa
- cold front over the western part of South Africa
- the I.T.C.Z. (Zonal low pressure system) lies to the north of the Equator.

Reasons

- movement of thermal equator/overhead sun
- northern hemisphere summer and southern hemisphere winter

1 mark each 6 marks

(Reserve 2 marks for either description/reason.)

(ii)
- calm/settled/ stable weather
- clear skies/sunny weather
- fair weather cumulus clouds
- subsidence and out flow of air/ divergence
- surface temperature inversion
- radiation fog and mist
- frost, dew etc.
- dry whether
- Low/ cool temperature

1 Mark each 2 marks 8

[25]

3. (a) (i)
- erosion/gullying, land degradation
- undercutting at the base of a river cliff
- erosion of river bank
- mechanical collapse/slumping
- siltation
- dry river bed
- a tree that has collapsed into the river
- bare ground
- sparse grass cover
- clumps of soil
- exposed roots
- sand bank
- some tree branches have been cut off, etc.

5 marks by ½

(ii)
- soils which are easily eroded
- sparse vegetation cover
- flash floods
- deforestation
- overgrazing
- stream bank cultivation
- over population
- gold panning, etc.

1 mark each — 5 marks — 10

(b) (i)

Inputs	Outputs
fence	skins
	trophies
game	meat
land	curios
capital	employment
vegetation	foreign currency, etc.
water, etc.	

1 mark each — 4 marks

(ii)
- culling reduces pressure on pasture/vegetation regenerates
- relocation of game reduces pressure on land
- money generated is ploughed back into protection of wildlife
- selective grazing and browsing by the different species reduces the danger of overgrazing
- tree planting restores vegetation cover, etc.
- building of dams and sinking of boreholes improves water supply.

1 mark each — 4 marks

(iii)
- corruption
- mismanagement
- lack of capital/ poverty
- poor planning
- lack of knowledge/illiteracy/ignorance
- drought
- poaching
- lack of land
- poorly developed transport networks/ remoteness
- political interference
- population pressure
- wood as only source of energy

1 mark each — 7 marks — 15 [25]

4. (a) (i)

trees	-	building, fuel, fencing, cooking sticks, axe handle, stools.
grass	-	thatching
iron and steel	-	drums, wire, axe
cotton	-	clothing
clay	-	plastering, decoration, bricks.
plastics	-	wash basin
tin	-	plates
water	-	cooking food, beer, washing

1 mark each 5 marks

(ii)
- deforestation
- open fires waste wood fuel/inefficient use of energy
- dangerous/ accidents.
- unhygienic/diseases.
- food poisoning
- pollution

1 mark each 3 marks

(iii)
- use of bricks, corrugated iron sheets, and asbestos.
- use of electricity
- cow dung and crop residue
- use of biogas, solar energy, paraffin.
- tsotso stoves
- earth stoves/fire places
- reforestation
- afforestation
- Education

1 Mark each 4 marks 12

(b) (i) **Distribution of fisheries**

- pelagic fishing areas near the west coast
- off-shore fishing more extensive on the eastern side
- large areas of off-shore trawling on the western side
- small areas of rock lobsters around Durban and the West Coast

(b) Name - Fulani, Masai OR East Africa, West Africa, Kenya

1 mark

Advantages

- movement ensures that the livestock gets water and pasture
- movement reduces the problems of tsetse flies (Fulani)
- no limits on the number of livestock

Disadvantages

- land conflicts
- difficult to provide services
- disease control is difficult
- overstocking → overgrazing
- poor quality livestock
- severe erosion around water holes
- frequent loss of large number of livestock due to disease and drought
- areas remain underdeveloped.
- desertification

1 mark each 6 marks 6

(Reserve 2 marks for either advantages or disadvantages)

(c) **(i)** Trends

1993 - 4	sharp increase
1994 - 5	decrease
1995 - 6	sharp drop
1995 - 7	increase

Effects

1993 - 94	-	food surplus
	-	more exports
1994 - 95	-	deficits → drought relief,
1995 - 96	-	importation of food, starvation, etc. Food aid.
1996 - 97	-	reduced food imports

1 mark each 7 marks

(Reserve 3 marks for either trends or effects)

(ii)
- employment
- shared labour and knowledge
- group purchasing of inputs and marketing
- access to credit facilities/bank loans
- shared risks

4 marks 11

1 mark each [25]

5. (a) (i) Initial Processing or adding value to a product or mineral concentration.

2 marks

(ii)
- heating
- vapour rises into fractional tower
- separation of various hydrocarbon fractions
- heavy gas oils are removed
- light oils flow into thermal cracker
- blending of petrol
- separation of gas from petrol
- polymerization
- residue removed from base

1 mark each 5 marks

(iii)

bitumen	-	road construction
	-	sealing roofs
chemicals	-	asprin
	-	perfumes

2 marks 9

Mark by ½ marks

(b) (i)
- Iron and steel industries supply building and construction with raw materials for reinforcement.
- Building and construction puts up buildings for banking and finance for investment and for security.
- Banking and finance supplies capital to both iron and steel and building and construction as investment.
- Money from both iron and steel and building and construction goes to banking and finance for security and investment.

1 mark each (reserve 2 either for description or explanation)
5 marks

(ii)

-	iron ore	-	pig iron
-	limestone	-	flux
-	coke	-	smelting
-	water	-	cooling

- chrome - hardening steel, etc. 4 marks 9

1 mark each

(c)
- Decentralization - equitable development in all areas.
- Privatisation - encourages efficiency.
- Indigenisation - empowers locals.
- Import substitution - saves forex.
- High tariffs on imported goods - protection of local industry.
- E.P.Zs.- increase exports and generate employment.
- Tax rebates- encourages investment.
- Lower taxes- encourages investment.
- Encourage technology which is sustainable and fully utilises the existing skills of the local people
- Labour intensive industries - create employment
- Develop industries which use local rather than imported raw materials e.g. agro - based to save forex.
- smart partnerships - encourage foreign investment. 7

[25]

1 mark each

(Reserve 3 marks for either policies or explanations).

7. (a) (i)
- restaurant on top floor - good view and less noise and congestion
- shops on ground floor for easy accessibility and need for street frontage for display of goods, floor space more expensive
- offices above ground floor → cheaper floor space, no need for street frontage, less noise and congestion
- basement shops, storage and parking → cheaper floor space
- mall for relaxation and easy access to shops
- roof - communication equipment - no obstacles to disturb waves.

1 mark each 6 marks

(Reserve 2 marks for either description or explanation).

(ii) **Council**

- improve traffic flow and reduce accidents
- reduce congestion
- employment creation
- improve health and welfare of people

- attract investors, etc.
- increase accessibility, etc.

Residents

- shortage of housing
- overcrowding
- diseases
- squatters
- crime
- prostitution, etc.

1 mark each.
Reserve 3 for either council or residents 7 marks 13

(b) (i)

- surrounded by many towns
- several satellite/domitory settlements/towns
- extends up to 120km
- largely agricultural and mining towns and growth points.
- extends to the N/W to Chinhoyi, NE to Bindura, East to Marondera, South to Beatrice and SW to Chegutu.

1 mark each 3 marks

(ii) Benefits

- labour
- raw materials
- large potential market
- supply of fresh farm produce
- entertainment
- employment
- housing
- decentralisation of industry

Problems

- traffic congestion
- unemployment
- crime and all forms of antisocial behaviour
- pollution
- primacy/ slow growth in smaller towns

1 mark each 5 marks
Reserve 2 marks for benefits/problems.

(iii) **High density**

- many small houses per unit area
- uniform designs
- fewer open spaces/recreational areas
- narrow streets
- tower lights
- many beer outlets, etc.

Low density

- large houses
- large residential stands
- varied designs
- large open spaces
- wider streets
- street lights
- more recreational facilities e.g. golf courses, tennis courts, swimming pools, etc.

4 marks 12
[25]

1 mark each per difference.

8. (a) (i) A

- low population growth rate
- low infant mortality rate
- large active population
- high life expectancy at birth
- higher rate of economic growth
- low unemployment

1 mark each Reserve 1 for name 7 marks

(ii)

- rapid population growth and slow economic growth (B)
- large potential labour force for both A and B
- slow population growth → unemployment for certain classes of labour (A)

1 mark each 4 marks 11

(b)

- remoteness
- low rainfall
- fewer mineral resources
- low altitude and high temperatures
- pests and diseases
- infertile sandy soils (Hwange area)

- state lands (forests)
- national parks and wildlife areas
- extensive farming types (ranching), etc. 7

1 mark each

(c) **Relationships**

- rapid population growth→ rapid exploitation and depletion of resources→ deforestation, erosion, siltation, desertification, etc.
- shortage of water → unhygienic conditions → diseases
- lack of cattle → shortage of drought power and manure
- shortage of wood fuel → negative impact on food supply and preparation
- over fishing → reduced food
- poarching → deception of wild- life.

Solutions

- birth reduction measures
- resettlement
- piped water schemes
- fish farming
- cattle restocking programmes
- use of alternative fuels, afforestation, reforestation
- wild- life conservation

1 mark
Reserve 3 marks for relationships or solutions) 7 marks [25]

9. (a) (i) Southern Africa Development Community

1 mark each 1 mark

(ii) **Promote**

- wealth from richer countries can be used to assist the poorer countries
- diffusion of technology
- movement of goods and skills
- large population gives rise to a large regional market

Hinder

- trade imbalances
- monopolistic tendencies
- protectionism
- some countries are poor
- different tarrif rates

1 mark each. Reserve 2 for either promote or hinder. 6 marks

(iii) **Advantages**

- forex
- aid
- technology
- skills
- preferential markets

Disadvantages

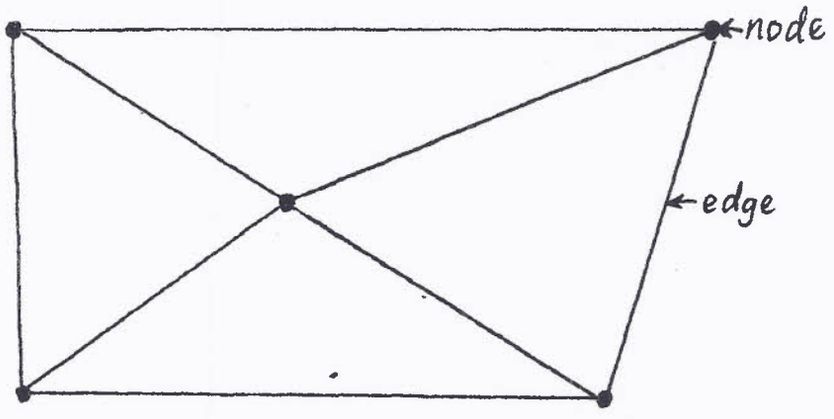
- quota system
- price control
- open market
- destabilization of governments

1 mark each. Reserve 3 marks for A/D. 7 marks

(iv)
- trade fairs/exports
- use of the internet to advertise goods
- setting up investment promotion centres
- South-South Co-operation
- E.P.Z.
- export of labour
- participation in foreign trade expos
- joining trading groups
- etablishing/opening trade missions in other countries, etc.

1 mark each 4 marks 18

(b) (i)



½ mark for each line
½ mark for node and ½ mark for edge — 5 marks

(ii)
- easy to construct
- easy to process
- quick visual impression of connectivity

1 mark each — 2 marks

7 [25]

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ZIMBABWE SCHOOL EXAMINATIONS COUNCIL

General Certificate of Education Ordinary Level

GEOGRAPHY 2248/1

PAPER 1 Multiple Choice

Wednesday **20 JUNE 2001** Afternoon 1 hour 15 minutes

1:50 000 Survey Map is enclosed with this question paper
Additional materials:
Multiple choice answer sheet
Soft clean eraser
Soft pencil (type B or HB is recommended)

00530

TIME 1 hour 15 minutes

INSTRUCTIONS TO CANDIDATES

Do not open this booklet until you are told to do so by the invigilator.
Write your name, Centre number and candidate number on the answer sheet in the spaces provided unless this has already been done for you.

There are **forty** questions in this paper. Answer **all** questions. For each question there are four possible answers, **A**, **B**, **C** and **D**. Choose the **one** you consider correct and record your choice in **soft pencil** on the separate answer sheet.
Read very carefully the instructions on the answer sheet.

INFORMATION FOR CANDIDATES

Each correct answer will score one mark.
A mark will not be deducted for a wrong answer.
Any rough working should be done in this booklet.

This question paper consists of 20 printed pages and a survey map.

[Turn over

Mapwork

Questions 1 to 12 refer to the 1:50 000 map extract of Mbalabala (Zimbabwe).

1. In which grid square would you find a dip tank, cultivation and a prospecting trench?

   A. 2133
   B. 2136
   C. 1940
   D. 2141

2. What map evidence shows that there is mining in grid square 1838?

   A. Mine dump
   B. Quarry
   C. Prospecting trench
   D. Embankment

3. What human feature is found at grid point 119 373?

   A. Staff quarters
   B. Rifle range
   C. St. Stephens College
   D. Shaw Barracks

4. The length of Inyankuni dam wall is

   A. 200 metres.
   B. 250 metres.
   C. 300 metres.
   D. 400 metres.

5. What is the grid-bearing of the quarry (134 392) from the summit of Tsvakambeva kopje (104 338)?

   A. 28°
   B. 152°
   C. 208°
   D. 332°

6. In which grid square does the wide tarred road from Esigodini to Mbalabala pass through a wind gap?

   A. 0941
   B. 1041
   C. 1140
   D. 1234

ZIMBABWE SCHOOL EXAMINATIONS COUNCIL

General Certificate of Education Ordinary Level

GEOGRAPHY **2248/1**

PAPER 1

Wednesday **20 JUNE 2001** Afternoon 1 hour 15 minutes

ERRATUM NOTICE

Question 1:

To read as "... would you find a dip tank, cultivation and dams?" instead of "... would you find a dip tank, cultivation and a prospecting trench?"

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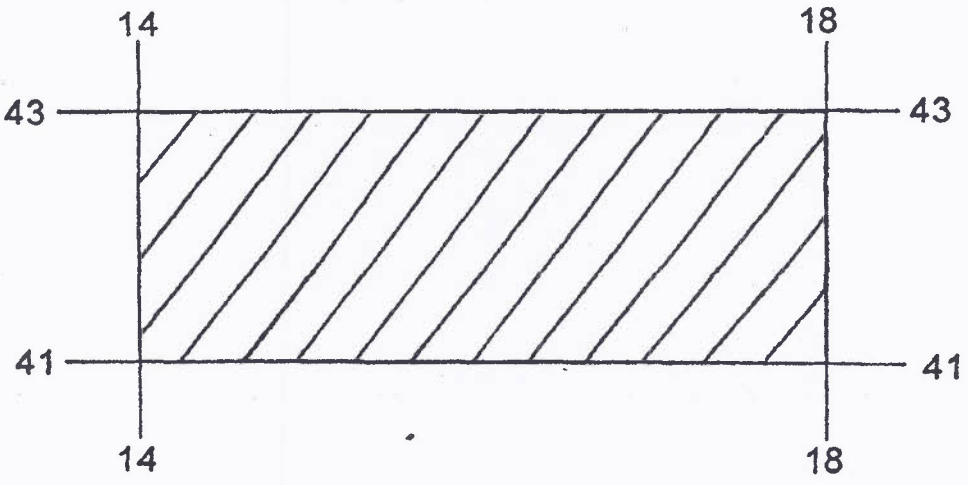
7. Study the map area shown.



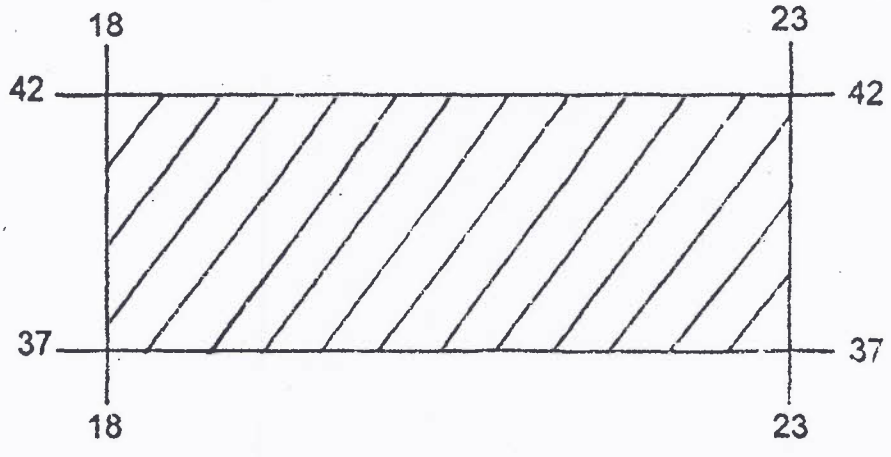
What is the general direction of flow of Umzingwani river in the area shown?

A. North-East to South-West
B. South-East to North-West
C. North to South
D. West to East

8. What types of vegetation would a driver observe on the northern side of the road as he drives along the wide tarred road from Mbalabala to the Umzingwani river bridge (2237)?

A. Sparse bush, medium bush, sparse bush.
B. Sparse bush all the way.
C. Medium bush, sparse bush, medium bush.
D. Dense bush all the way.

9. Study the map area shown.

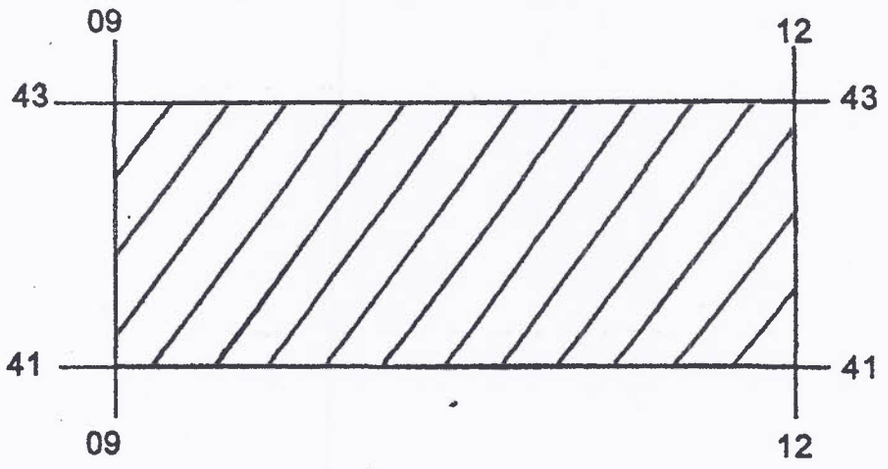


According to map evidence, what is the main activity in the shaded area?

A. Cultivation
B. Fishing
C. Plantation
D. Mining

[Turn over

10. The shaded area shows part of the map extract.



The settlement pattern in the area shown above is

A. haphazard.
B. nucleated.
C. radial.
D. linear.

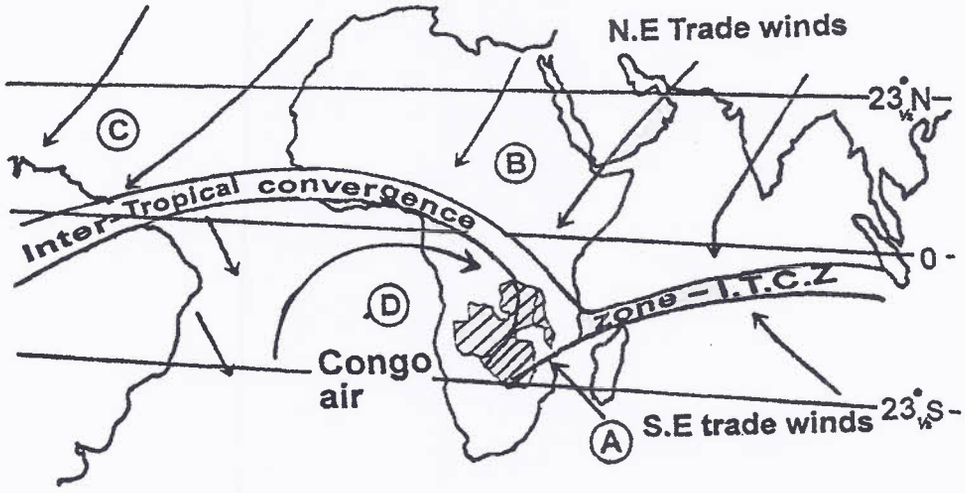
11. Which grid square has a dendritic drainage pattern?

A. 1747
B. 1433
C. 1439
D. 0941

12. The Umzingwani river is not suitable for navigation because of the presence of

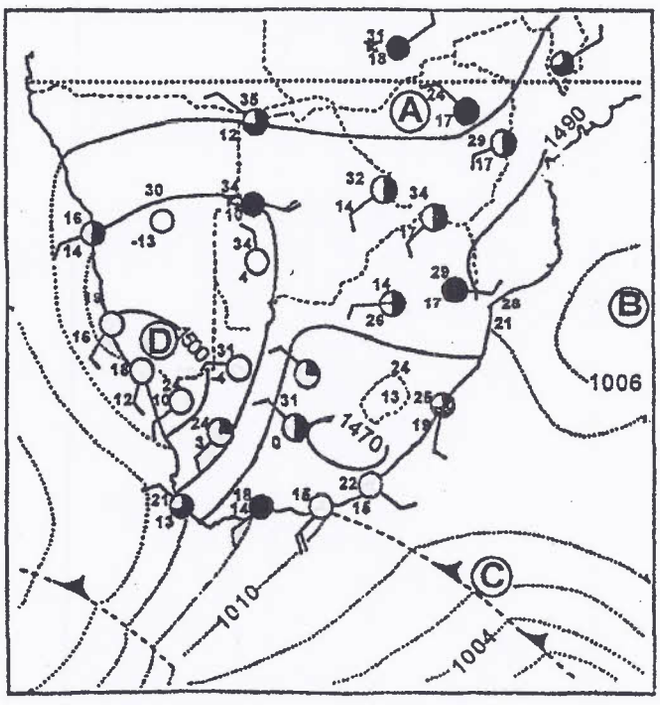
A. dams.
B. islands.
C. meanders.
D. rapids.

13. Study the wind and pressure pattern below.



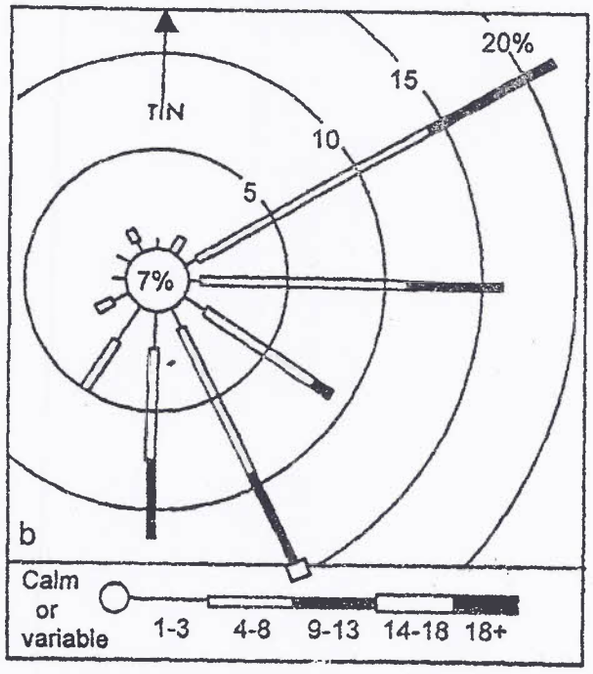
Which air mass **A**, **B**, **C** or **D** brings dry conditions to the area it blows to?

14. The map shows weather conditions over Southern Africa on a particular day.



Which area **A**, **B**, **C** or **D** was experiencing anticyclonic conditions on that day?

15. The diagram shows the direction and force of winds for station X for a period of one month.



The prevailing wind direction for the station over the period was

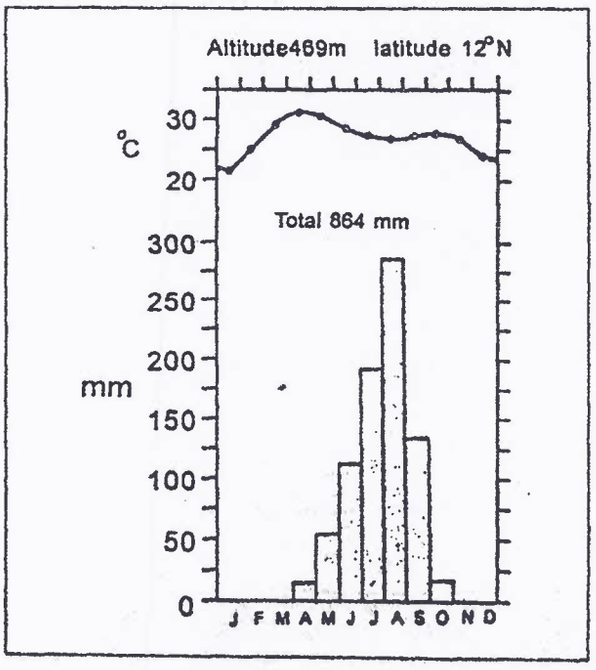
A. Easterly.
B. North-Easterly.
C. South-Westerly.
D. North-Westerly.

16. Study the weather records kept at a school over a period of four days.

DAY	DRY BULB (°c)	WET BULB (°c)	BAROMETER (mb')	RAIN	CLOUD COVER
A.	19,5	16,5	1005	,	
B.	19,4	17,0	1002	≡	
C.	19,0	18,5	1000	•	
D.	19,5	17,0	1003	,	

On which day **A**, **B**, **C** or **D** was the highest rainfall experienced?

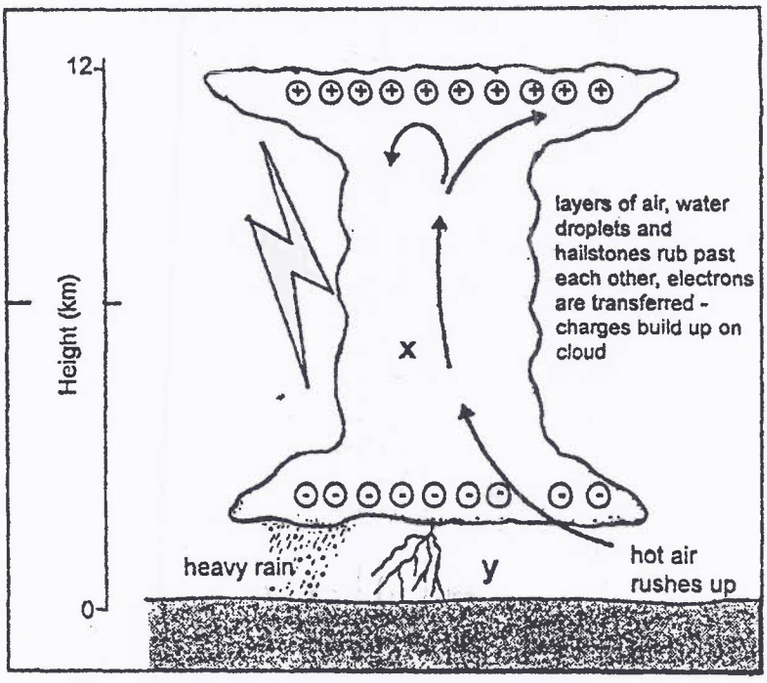
17. Study the rainfall and temperature graphs below.



The climatic region represented by the graphs is

A. Equatorial.
B. Hot Desert.
C. Hot Monsoon.
D. Savanna.

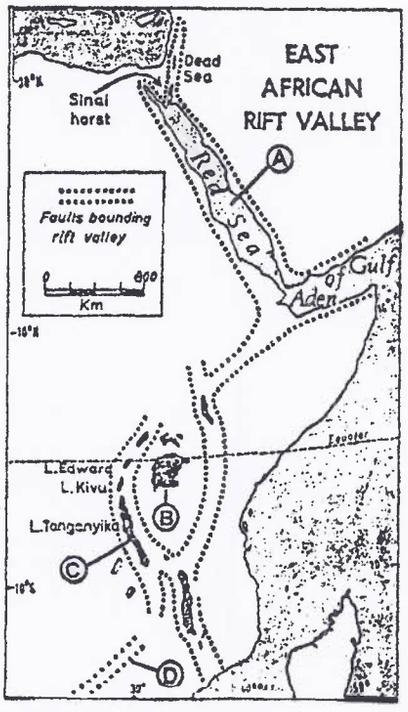
18. The diagram shows a weather phenomenon associated with a thunderstorm.



The weather conditions likely to be experienced at **X** and **Y** respectively are

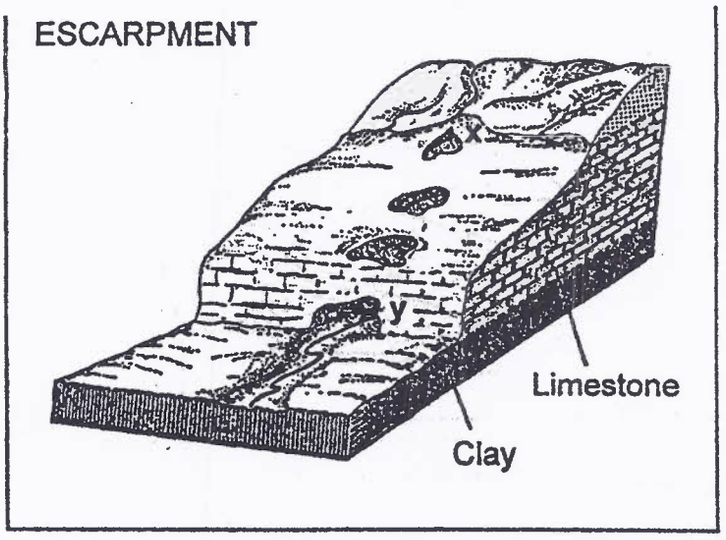
A. hail and mist.
B. lightning and fog.
C. mist and thunder.
D. hail and lightning.

19. The map shows the East African rift valley formed by a combination of tensional and compressional forces.



Which feature **A**, **B**, **C** or **D** is due to compressional forces resulting in down-warping?

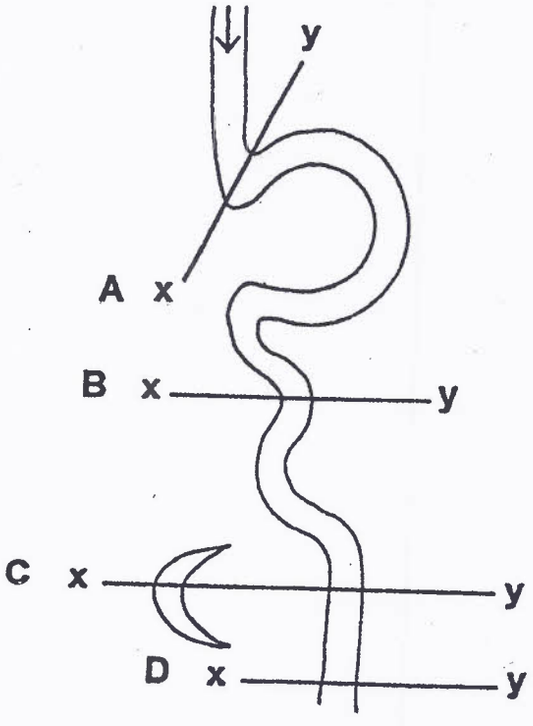
20. Study the diagram below.



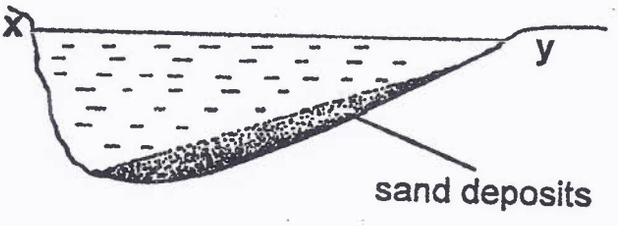
The process leading to the disappearance of the river between points **X** and **Y** is

A. carbonation.
B. hydration.
C. infiltration.
D. oxidation.

21. The diagram shows a river valley.

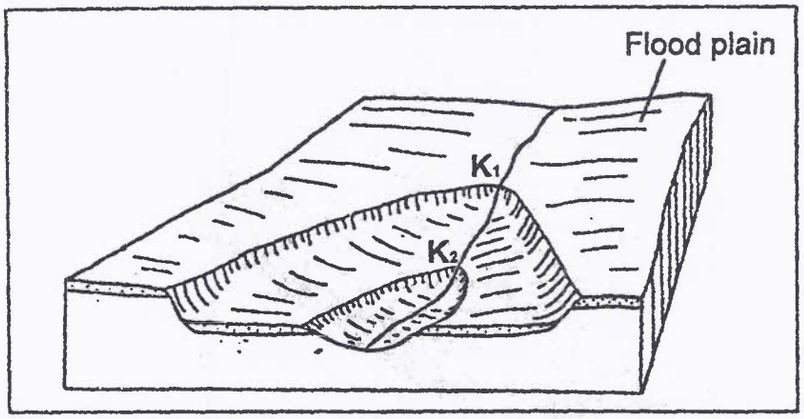


CROSS-SECTION



Which point **A**, **B**, **C** or **D** is represented by the cross-section shown?

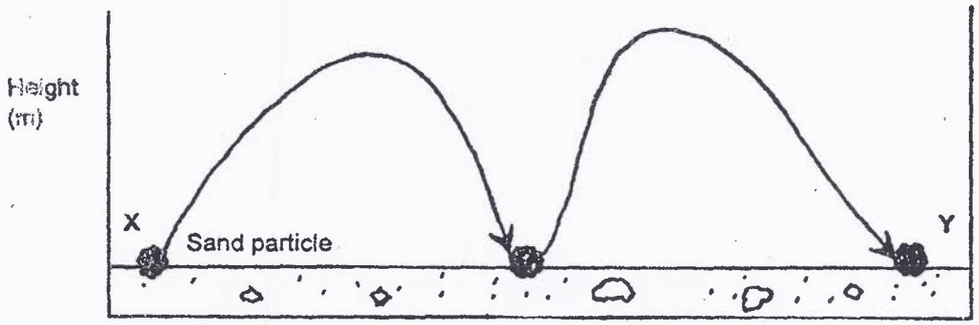
22. The diagram shows knickpoints K_1 and K_2 in a river valley.



Which process resulted in the formation of these knickpoints?

A. Braiding
B. Flooding
C. Rejuvenation
D. Terracing

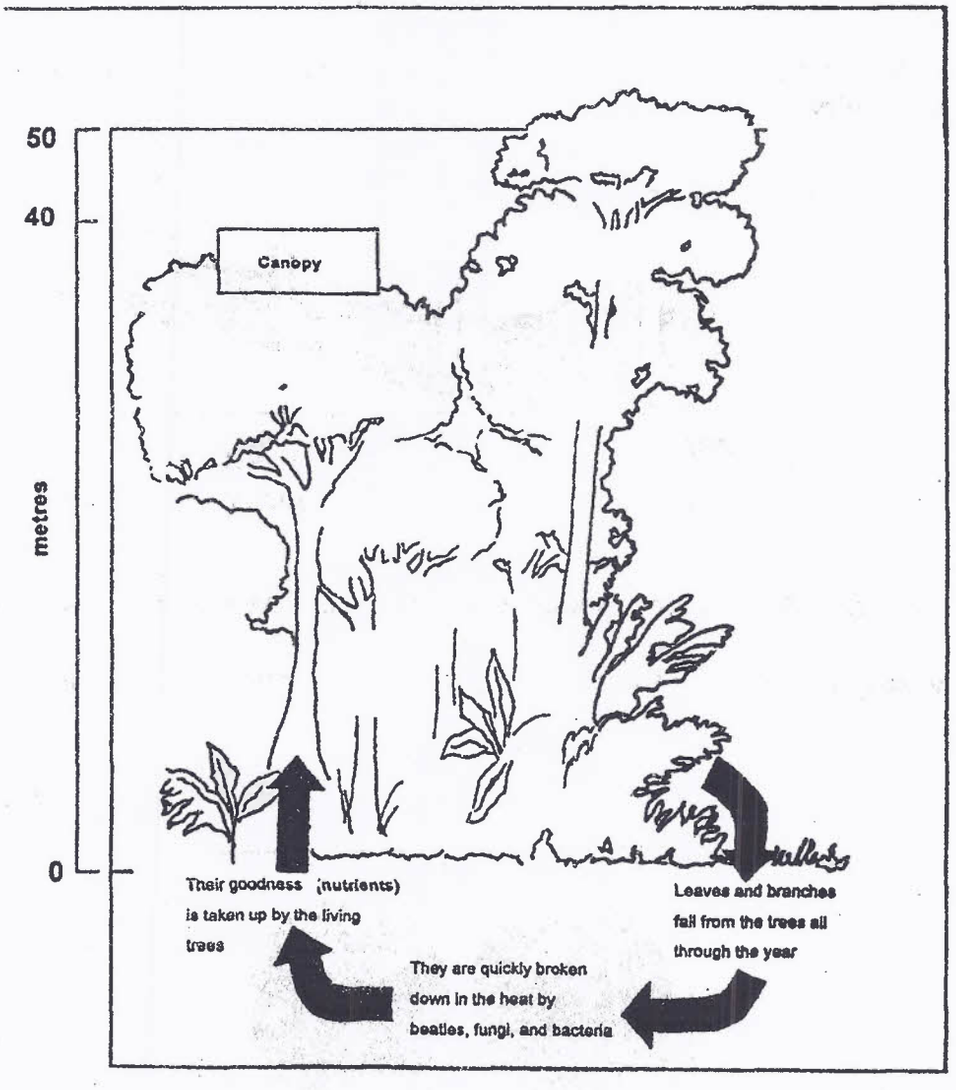
23. The graph shows the movement, in deserts, of the same sand particle from point **X** to point **Y**.



This type of movement is called

A. siltation.
B. suspension.
C. saltation.
D. surface creep.

24. The diagram shows an equatorial ecosystem.



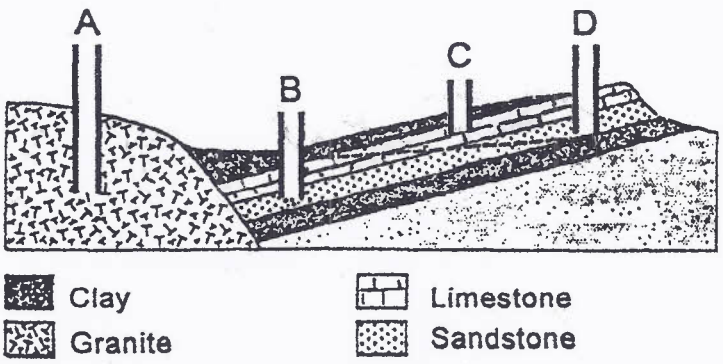
The main activity disrupting the nutrient cycle shown is

A. unsustainable safari hunting.
B. depopulation due to diseases.
C. excessive logging by companies.
D. introduction of artificial fertilizers.

25. Vegetation zones resulting from increasing altitude are broadly similar to those of

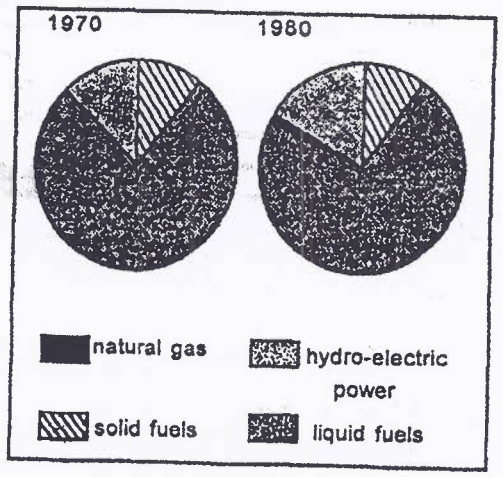
A. increasing rainfall.
B. reduced temperature.
C. changes in soil depth.
D. increasing latitude.

26. The diagram shows a series of wells harvesting underground water for a local community.



Which well **A**, **B**, **C** or **D** would provide a more permanent source of water?

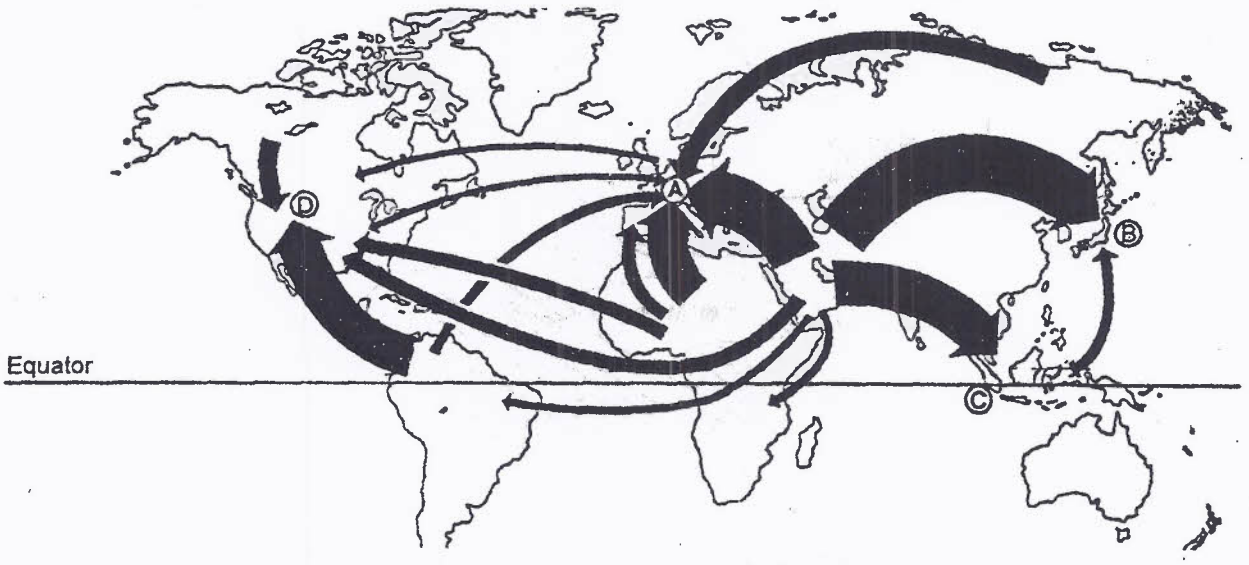
27. The pie charts show the total consumption of energy for a country in 1970 and 1980.



Which of the following energy types experienced the greatest increase in consumption?

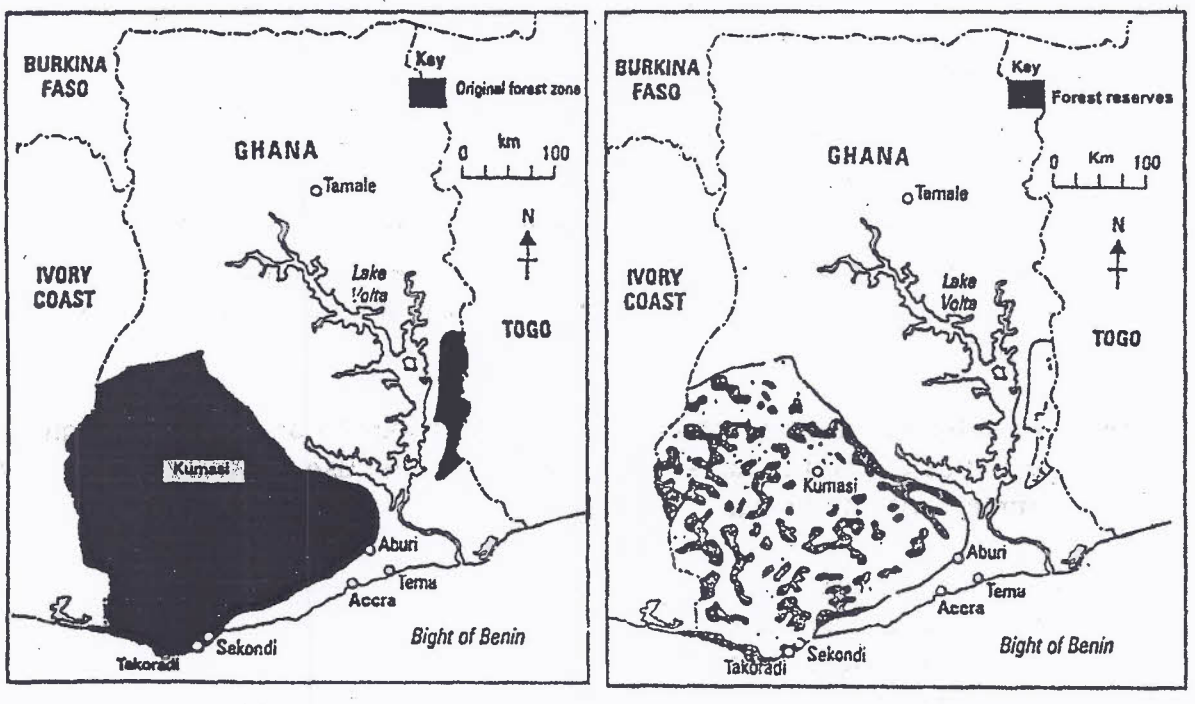
A. Solid fuels
B. Liquid fuels
C. Natural gas
D. Hydro-Electric Power

28. The map below shows the movement of oil in the world in 1993.



Thickness of flow lines is proportionate to percentages of total flow.
Which one of areas **A**, **B**, **C** or **D** received the largest volume of oil?

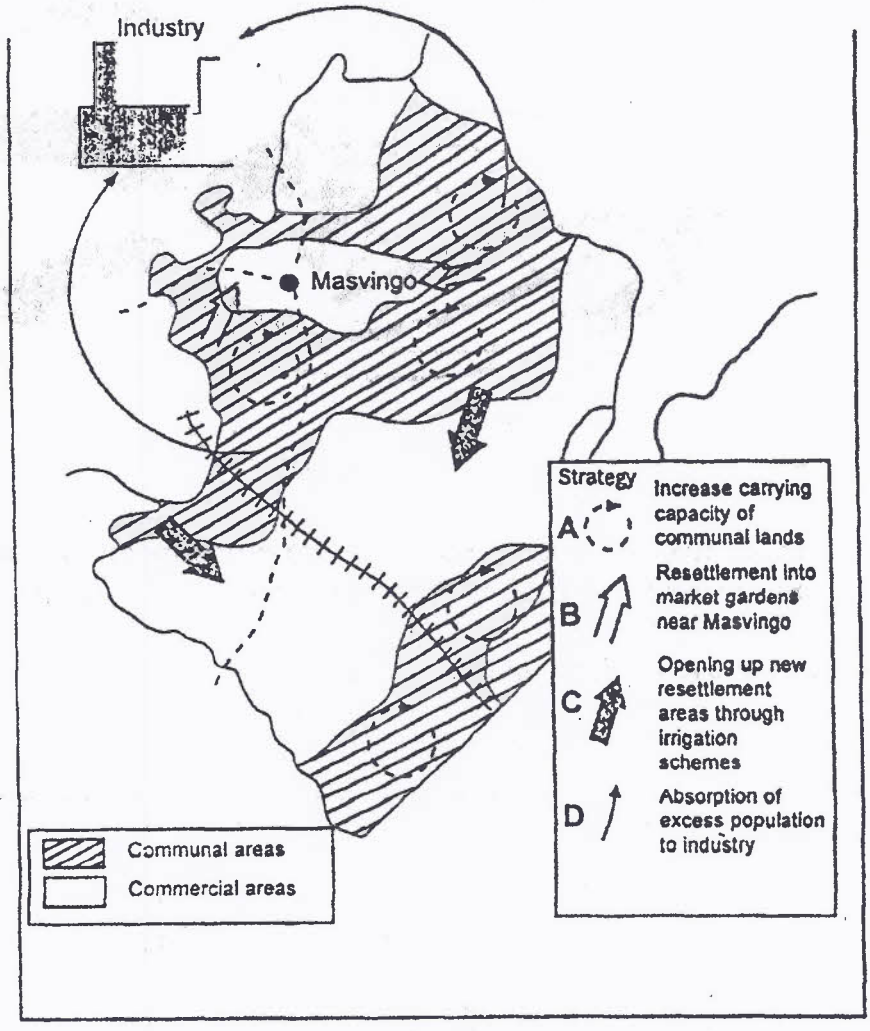
29. The maps show Ghana's original forest zone and the remaining forest reserves.



What can be done to save Ghana's dwindling forests?

A. Grow plantation crops.
B. Use substitutes for wood.
C. Increase the prices for timber.
D. Irrigate the forests.

30. The map shows development strategies to improve productivity and living standards in communal areas in Zimbabwe.



Which one of the strategies **A**, **B**, **C** or **D** has the greatest potential to improve agricultural production on a more permanent basis in communal areas?

31. An agricultural development strategy involving the production of high yielding varieties of food crops and the application and use of fertilizers, insecticides, implements and water control is

A. permaculture.
B. green revolution.
C. shifting cultivation.
D. transhumance.

32. Industries which produce bulky items on manufacture are best located near

A. the market.
B. labour supplies.
C. raw materials.
D. power supplies.

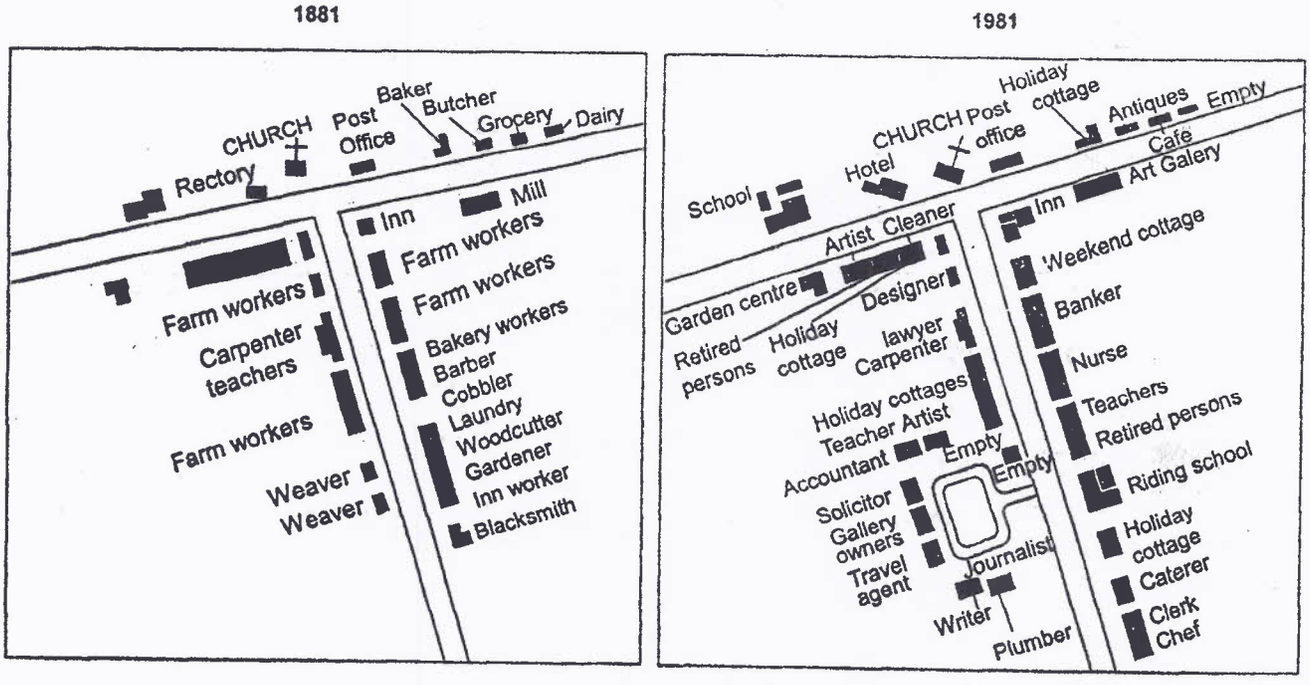
33. The table below shows the percentage of holiday and business trips undertaken by members of various social groups in a country.

Social Group	HOLIDAY AND BUSINESS TRIPS	
	SHORT 1 to 3 NIGHTS -%	LONG 4 NIGHTS OR MORE - %
A. Managerial	32	25
B. Supervisory	26	24
C. Skilled Manual	25	28
D. Unskilled	16	25

Which social group **A**, **B**, **C** or **D** spends the most time away from home?

Population, Settlement and Trade

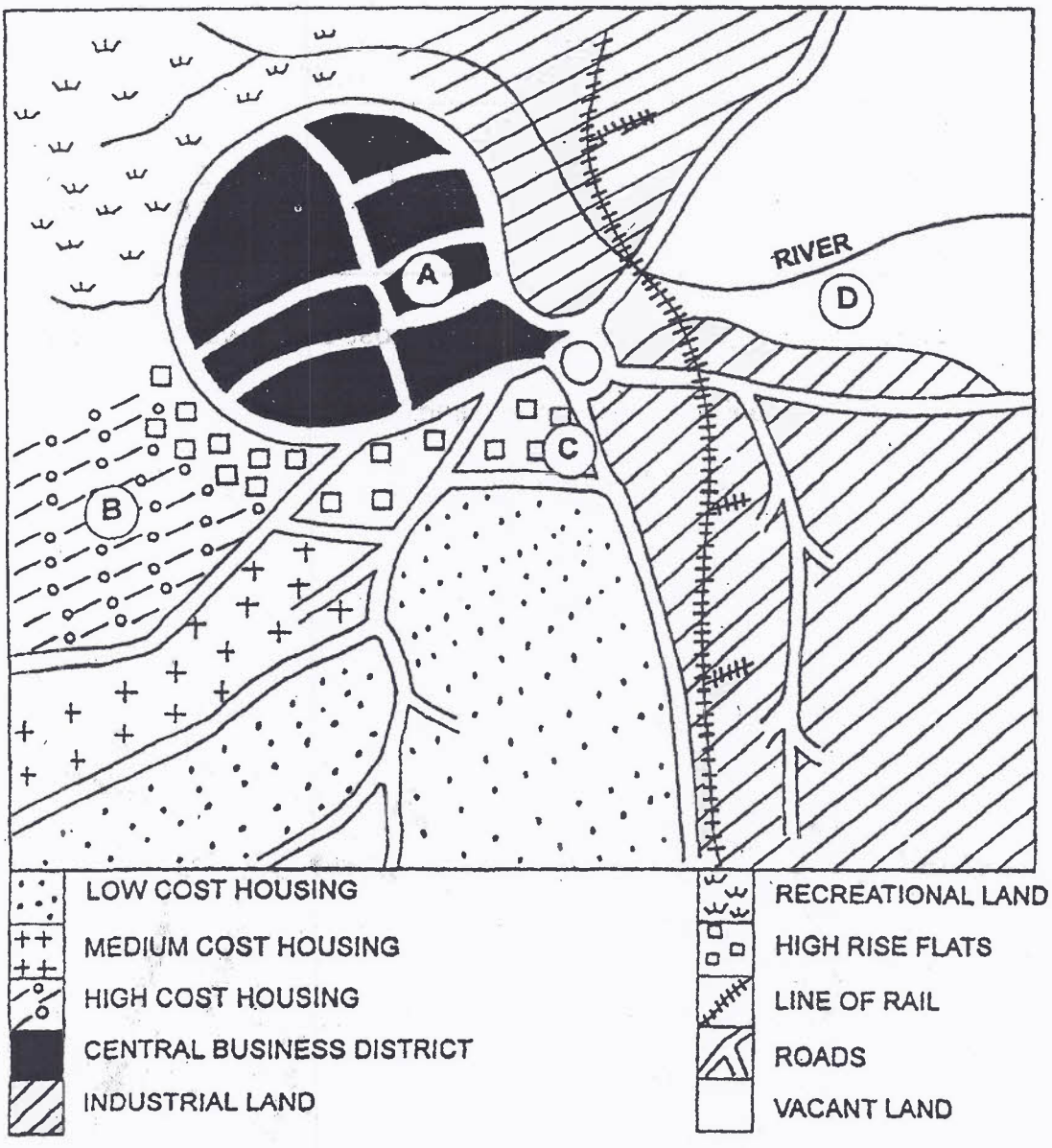
34. The maps show land-use at a settlement in 1881 and 1981 respectively.



The main change that has taken place is that the settlement has

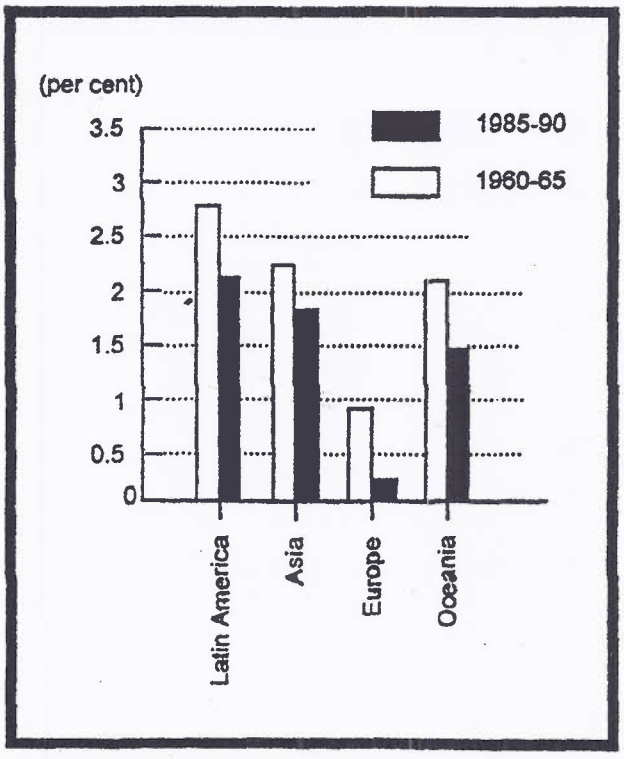
A. a drastically altered street pattern.
B. more urban functions.
C. decreased in services.
D. less vegetation cover.

35. The sketch map below shows the land-use zones of a city in a developing country.



In which of the zones **A**, **B**, **C** or **D** is a squatter settlement most likely to develop?

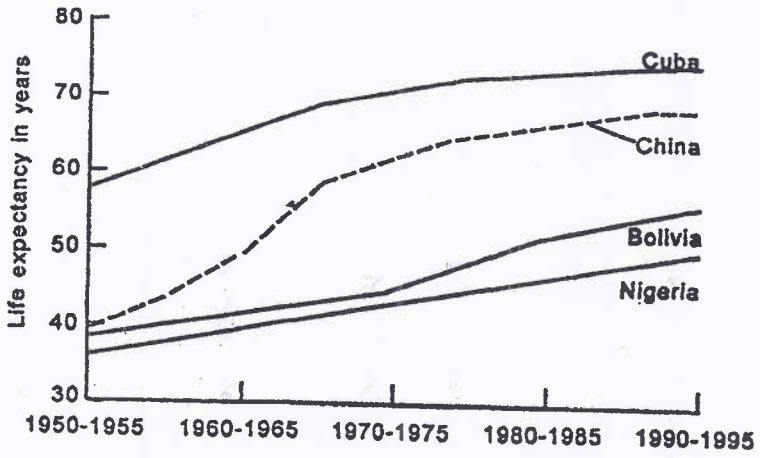
36. The bar graph shows the average annual population growth rates for four regions in the periods 1960 - 65 and 1985 - 90.



Which region had the largest drop in its population growth rate from 1960 to 1990?

A. Oceania
B. Europe
C. Asia
D. Latin America

37. The graphs show the rise in life expectancy for the male population in four developing countries between 1950 and 1995.



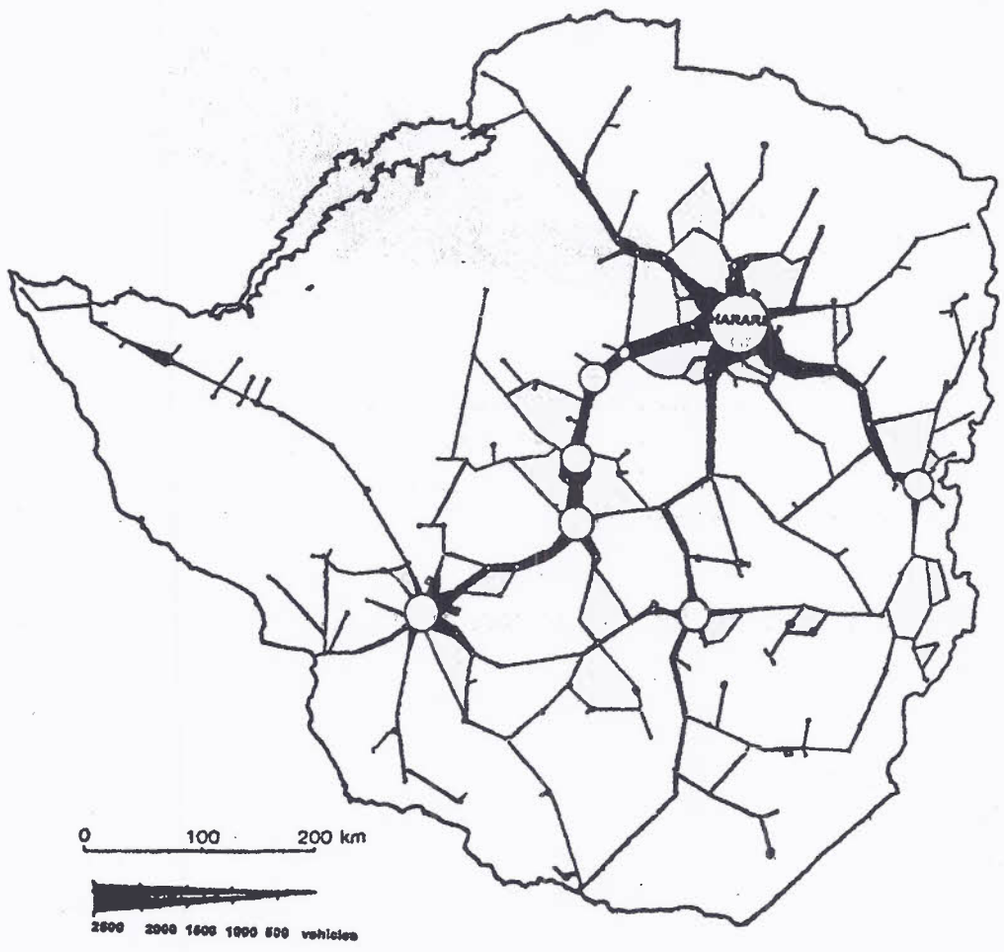
The country which experienced the greatest improvement in male life expectancy is

A. Bolivia.
B. China.
C. Cuba.
D. Nigeria.

38. Which one of the following diseases could be controlled by the provision of clean and safe water sources to communities?

A. Bilharzia
B. Cholera
C. Kwashiorkor
D. Malaria

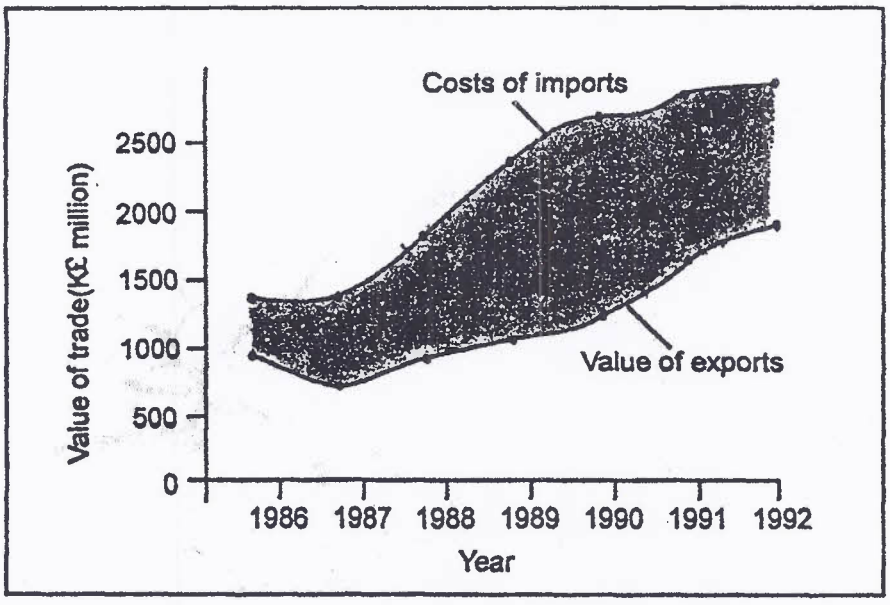
39. Volume of traffic on Zimbabwe's roads.



The technique used to show the volume of traffic on the map above is

A. bar graph.
B. scatter diagram.
C. flow line.
D. pie chart.

40. The graph shows the value of exports for Kenya between 1986 and 1992.



During which of the following years did the country experience the largest trade deficit?

A. 1988
B. 1989
C. 1990
D. 1991

GEOGRAPHY **JUNE 2001**

2248/01

POSSIBLE ANSWERS

MAPWORK
(1:50 000 MBALABALA)

1.	C	2.	B
3.	A	4.	C
5.	A	6.	C
7.	B	8.	A
9.	A	10.	A
11.	A	12.	D

ECONOMIC GEOGRAPHY

26.	B	27.	D
28.	A	29.	B
30.	C	31.	B
3.2	A	33.	A

PHYSICAL ENVIRONMENT

13.	B	14.	D
15.	B	16.	C
17.	D	18.	D
19.	B	20.	A
21.	A	22.	C
23.	C	24.	C
25.	D		

POPULATION, SETTLEMENT AND TRADE

34.	B	35.	D
36.	B	37.	B
38.	B	39.	C
40.	C		

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ZIMBABWE SCHOOL EXAMINATIONS COUNCIL

General Certificate of Education Ordinary Level

GEOGRAPHY 2248/2

PAPER 2

Monday 11 JUNE 2001 Morning 2 hours 30 minutes

Additional materials:
Answer paper

15691

TIME 2 hours 30 minutes

INSTRUCTIONS TO CANDIDATES

Write your name, Centre number and candidate number in the spaces provided on the answer paper/answer booklet.
Answer **four** questions.
Answer **one** question from each of Sections A, B and C and **one** other question from any section.
Write your answers on the separate answer paper provided.
If you use more than one sheet of paper, fasten the sheets together.

INFORMATION FOR CANDIDATES

The number of marks is given in brackets ( ) at the end of each question or part question.
Insert 1 contains Photographs **A** and **B** for use with Questions 3 and 4.
Sketch maps and diagrams should be drawn whenever they serve to illustrate an answer.

This question paper consists of 14 printed pages, 2 blank pages and 1 insert.

[Turn over

Section A (Physical Environment)

Answer at least one question from this section.

1. (a) Fig. 1 shows some landforms and geological processes in Africa.

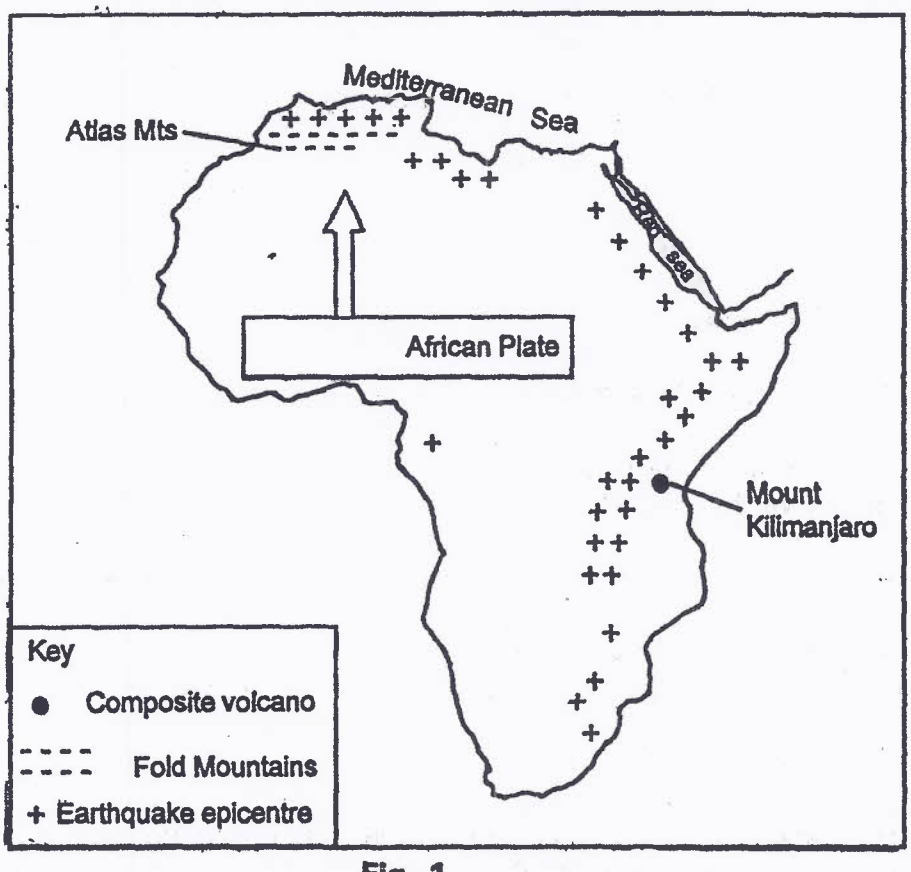


Fig. 1

(i) Draw a labelled diagram to show the cross section of the Atlas mountains. (5)

(ii) Using Fig. 1, describe how the Atlas mountains were formed. (5)

(iii) Describe the distribution of the earthquake epicentres shown on Fig. 1. (3)

(b) Some river valleys experience frequent flooding. Suggest the benefits the floods bring to both the people and the environment. (7)

(c) Explain the process of exfoliation. (5)

2. (a) Fig. 2 shows information on Cyclone Domoina.

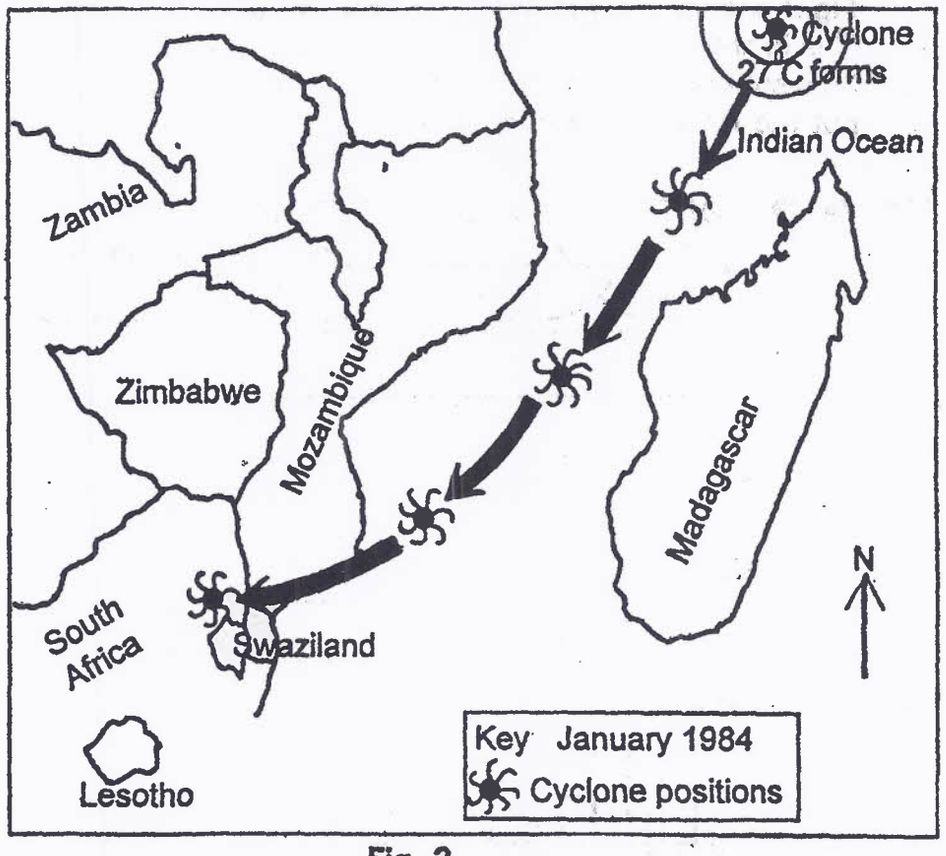


Fig. 2

(i) With reference to Fig. 2, describe the formation and movement of Cyclone Domoina. (5)

(ii) State three effects of Cyclone Domoina over the land surface it travelled across in January 1984. (3)

(iii) In your view, what steps should people take to solve the problems caused by cyclones? (7)

(b) **Fig.3** shows climatic graphs for two stations **X** and **Y**. **X** is in the southern hemisphere and **Y** in the northern hemisphere. The rainfall is the same for both stations but the temperature is different.

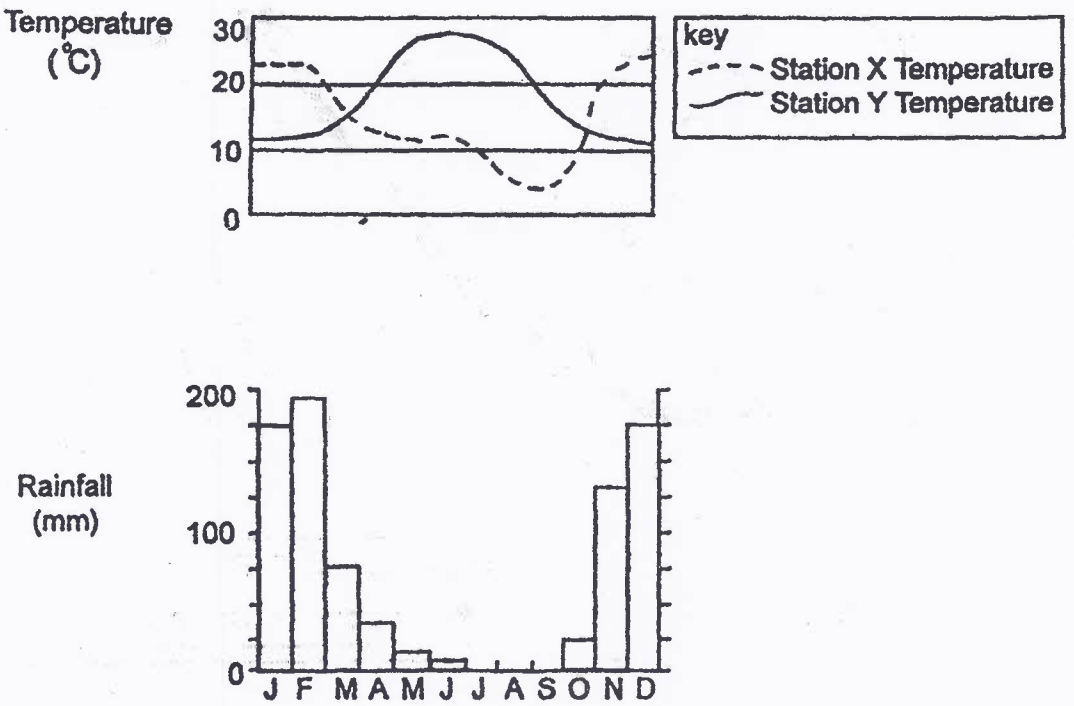


Fig. 3

(i) Describe the type of climate for each of the stations **X** and **Y**. (6)

(ii) For **either X or Y**, describe how the climate influences human activities. (4)

3. (a) Fig. 4 shows the nutrient cycle in a Savanna ecosystem.

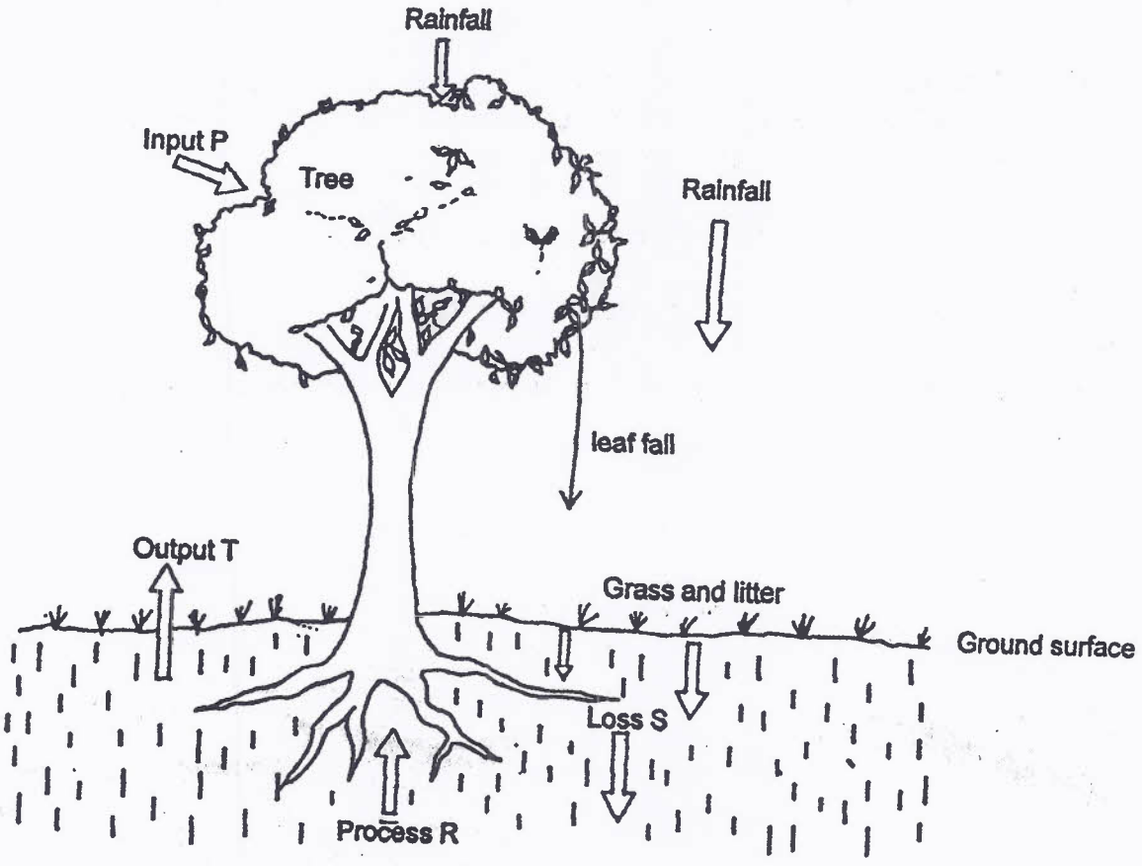


Fig. 4

(i) Explain the term 'ecosystem'. (2)

(ii) On your answer paper, name input P, process R, loss S and output T. (4)

(iii) Describe the role of plants in the ecosystem shown on Fig. 4. (5)

(b) Study Photograph A (Insert 1) which shows land use in an ecosystem.

What evidence shows both positive and negative human interference in the ecosystem? (7)

(c) Desertification is threatening the survival of rural areas. As a Natural Resources Officer, explain why you would be concerned about this problem. (7)

Section B (Economic Geography)

Answer at least **one** question from this section.

4. (a) Fig. 6 shows a sketch section across the Hwange coalfield.

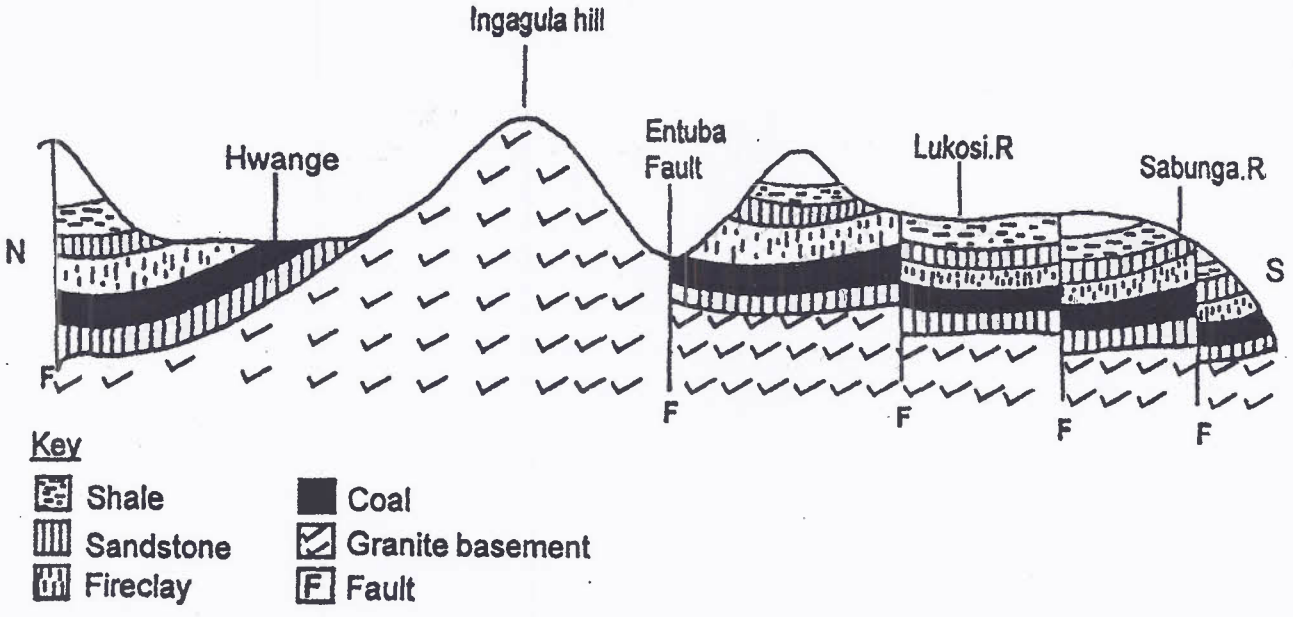


Fig. 6

(i) Draw a labelled diagram to show the method of mining the coal at Hwange. (4)

(ii) State and explain **two** problems likely to be faced in mining the coal south of Ingagula hill. (4)

(b) Study Photograph B (Insert 1) which shows the exploitation of timber in Zimbabwe.

(i) Describe the scene in the photograph. (3)

(ii) Compare the advantages of timber production shown in photograph B with that of indigenous forests. (7)

ZIMBABWE SCHOOL EXAMINATIONS COUNCIL

General Certificate of Education Ordinary Level

GEOGRAPHY 2248/2

PAPER 2

INSERT 1

Monday **11 JUNE 2001** Morning 2 hours 30 minutes

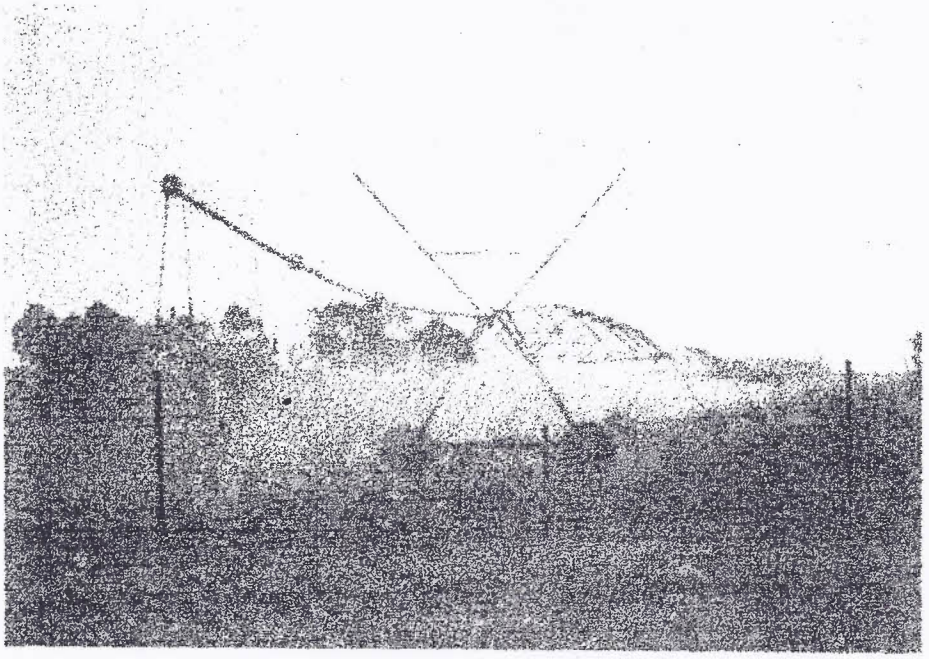
INSTRUCTIONS TO CANDIDATES

This insert contains Photograph A for use with Question 3(b) and Photograph B for use with Question 4(b).

This insert consists of 2 printed pages.

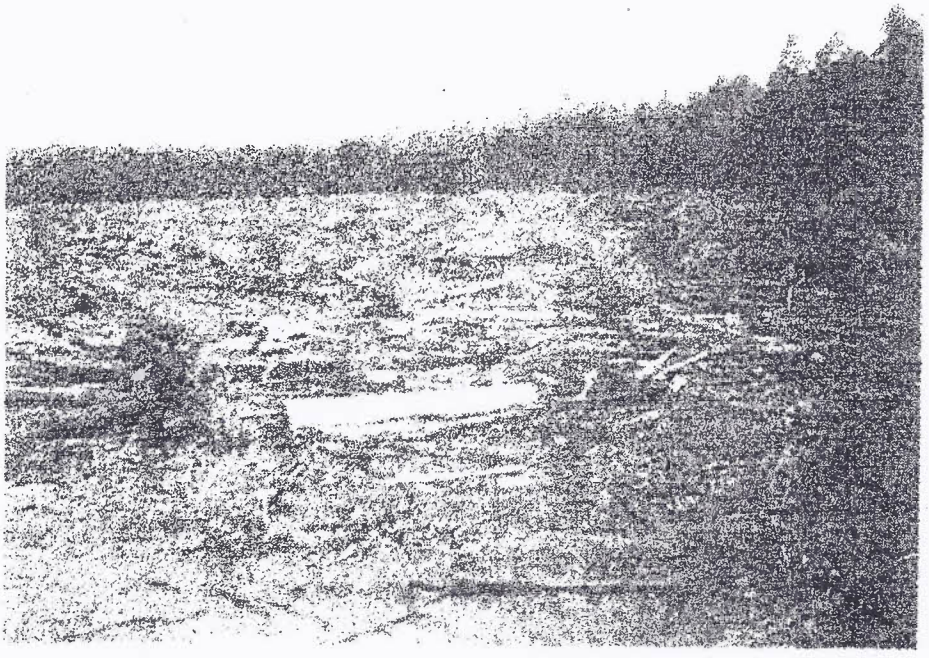
[Turn over

Photograph A for Question 3(b)



© Mr. E. M. Munowenyu

Photograph B for Question 4(b)



© Mr. S. T. Moyo

(c) The use of coal is extending to rural areas while coal mines are using trees to reclaim mine dumps. Discuss the advantages of each programme. (7)

5. (a) Fig. 7 shows results of a sample survey on problems faced by communal farmers in Zimbabwe.

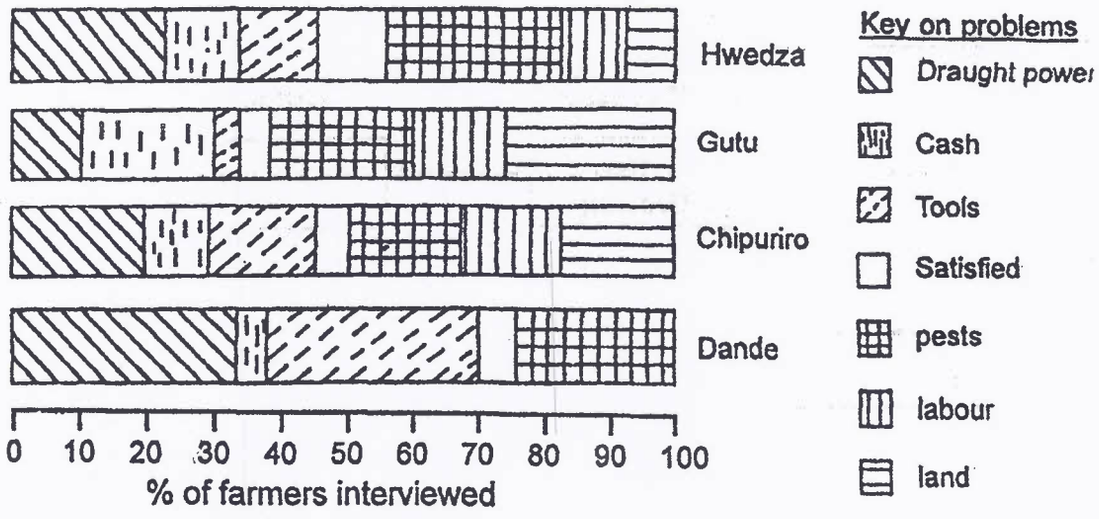


Fig. 7

(i) Name the type of graph used to show the information on Fig. 7. (1)

(ii) Calculate the percentage of farmers with tool problems in Dande and those with land problems in Gutu. (2)

(iii) Using information on Fig. 7 only, explain why Hwedza is likely to be the most successful farming area. (4)

(iv) As an Agritex Officer, what steps would you take to solve the farming problems in the Dande communal lands? (7)

(b) Fig. 8 shows a cotton growing system.

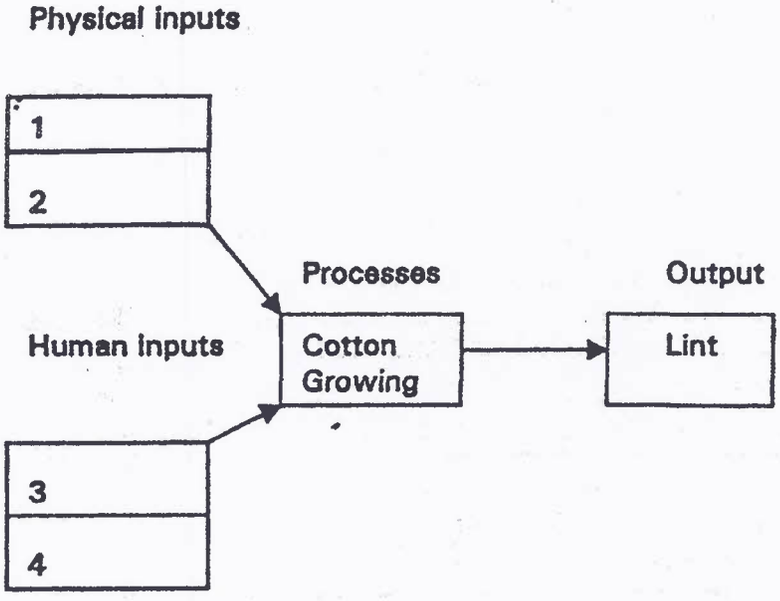


Fig. 8

(i) On your answer paper, complete the diagram by filling in the physical inputs 1 and 2 and the human inputs 3 and 4. (4)

(ii) Describe the processing and marketing of cotton in Zimbabwe. (7)

6. (a) (i) Give an example of an industry for each of the following types of technology: low, intermediate, high. (3)

(ii) Explain why there are few high technology industries in Zimbabwe. (4)

(iii) The following conditions apply to an industry wishing to locate at an export processing zone (E.P.Z.):

ability to earn foreign currency;
conservation of the environment;
and taxation.

Explain the type of technology this industry would use to meet the conditions above. (4)

(b) **Fig. 9** shows the industries of Greater Cairo, Egypt.

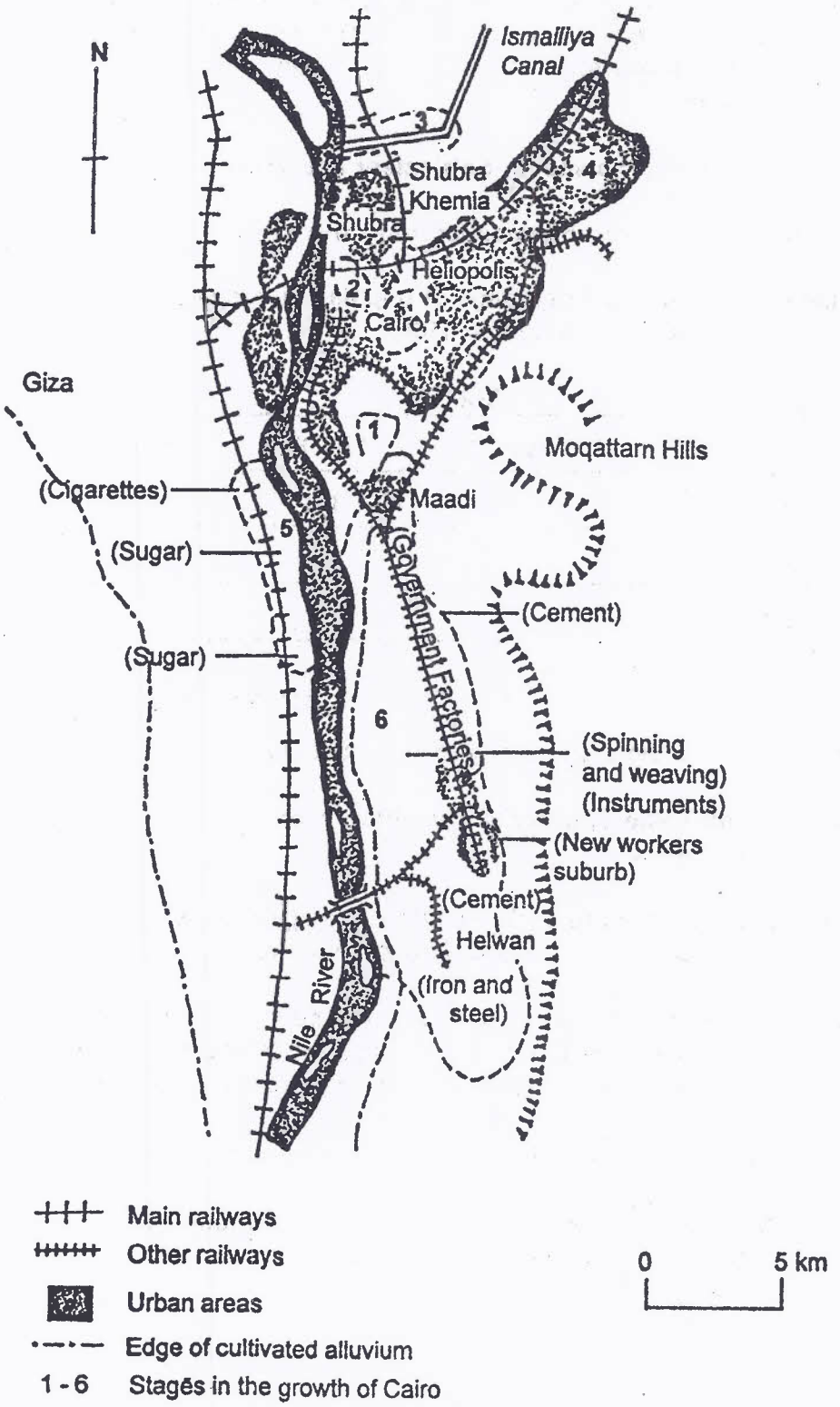


Fig. 9

(i) Describe and explain the distribution of industries in the Greater Cairo area shown on Fig. 9. (7)

(ii) What environmental and human hazards are associated with the industries found in the Helwan district of Cairo? Suggest measures which can be taken to solve the problems. (7)

Section C (Population, Settlement and Trade)

Answer at least **one** question from this section.

7. (a) **Table 1** shows the percentage of population in specific age groups in selected countries in 1995.

TABLE 1

Country	Under 15	15 - 65	Over 65
Brazil	32	63	5
U.S.A.	22	66	12
Italy	15	69	16
Zimbabwe	47	51	2

(i) What is the dependency load for Brazil and for Italy? (2)

(ii) Using **Table 1**, describe the differences in life expectancy. (3)

(iii) Draw graphs, **to scale**, to show the age groups given in **Table 1** for the U.S.A. and Zimbabwe. (6)

(iv) Explain the economic problems the countries are likely to face as a result of their population structures and suggest steps you would take to solve these problems. (7)

(b) (i) Explain the causes of rural to rural migration. (3)

(ii) Describe the social effects of these migrations in both the source and the receiving areas. (4)

8. (a) Fig. 10 shows part of the Mongu-Lealui district in the Barotse province, Western Zambia.

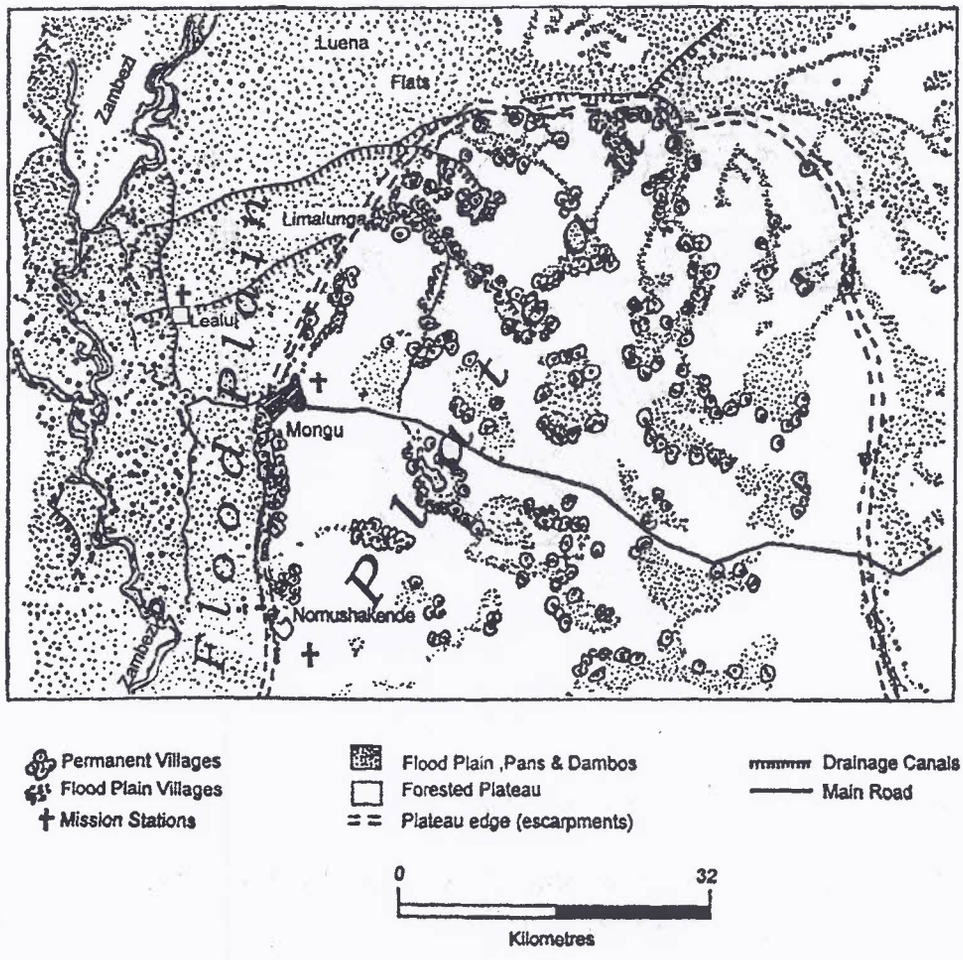


Fig. 10

(i) Describe the distribution of the villages in the area shown. (4)

(ii) Give reasons for the distribution described in (a) (i) above. (4)

(iii) Outline the environmental problems faced by the villagers settled along the Zambezi flood plain. Suggest solutions to these problems. (7)

(b) **Fig. 11** shows the urban population in Africa as a percentage of the total in 1994.

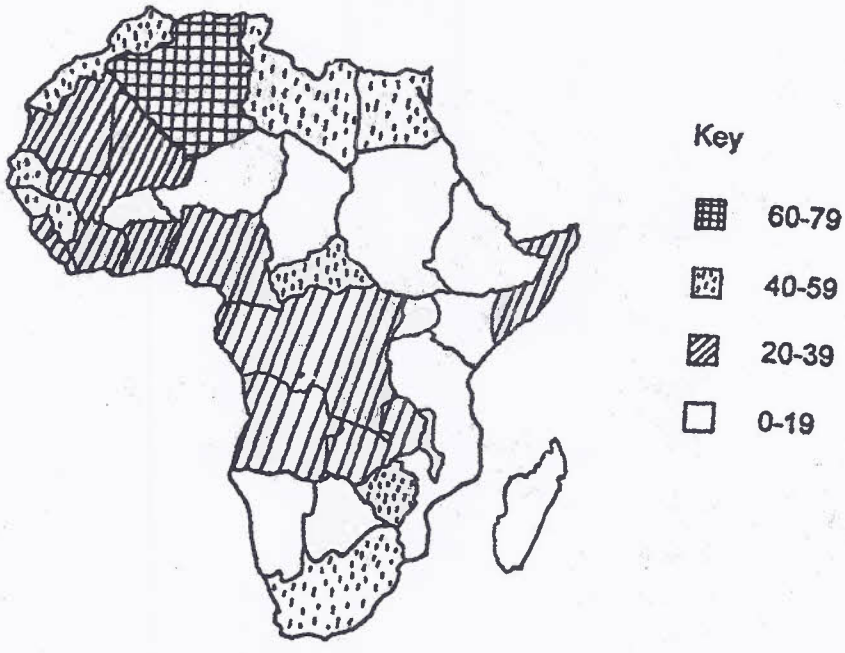


Fig. 11.

(i) Explain the term 'urbanisation'. (2)

(ii) Describe the variations in the level of urbanisation in Africa shown on **Fig. 11.** (4)

(iii) Describe the problems of rapid urbanisation in Africa. (4)

9. (a) Fig. 12A shows passenger transport per week between Harare and Bulawayo and Fig. 12B between Harare and Masvingo.

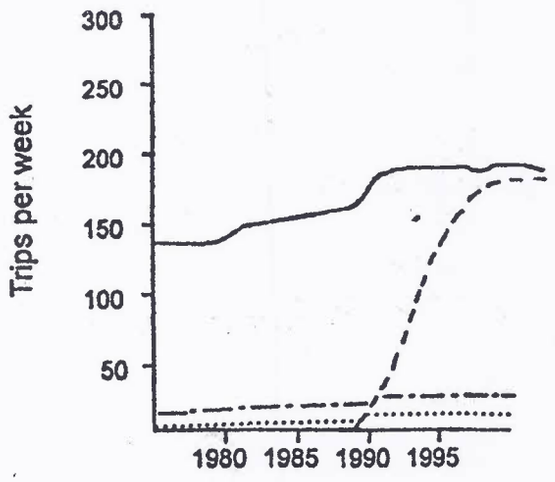


Fig. 12A

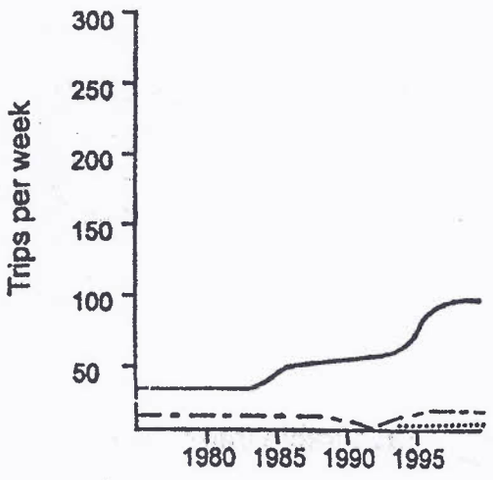


Fig. 12B

Key for both graphs

bus — commuter omnibus
train ····· air

(i) Compare the trends between Figs. 12A and 12B. (4)

(ii) Give reasons for the differences outlined in (a) (i) above. (4)

(iii) Outline the problems faced by the bus and commuter omnibus transport between Harare and Bulawayo and suggest solutions to these problems. (7)

(b) Fig. 13 shows areas of favourable and unfavourable trade in Zimbabwe.

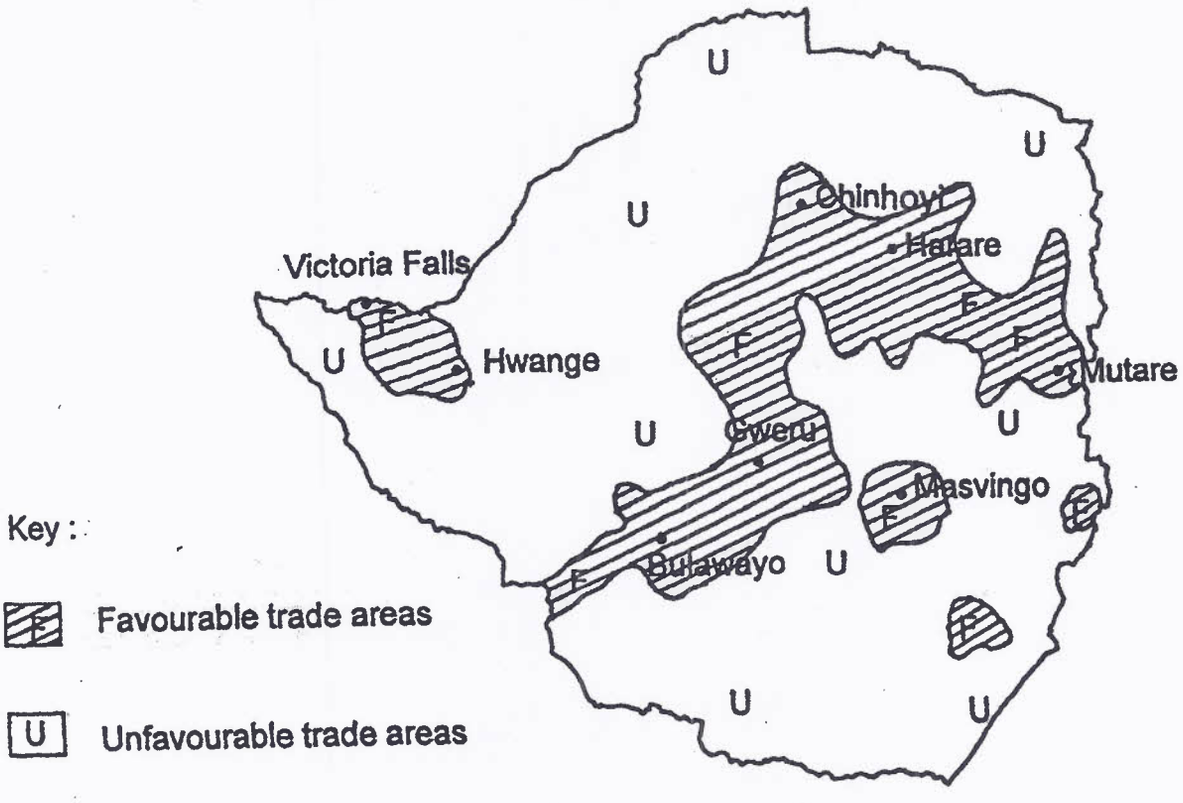


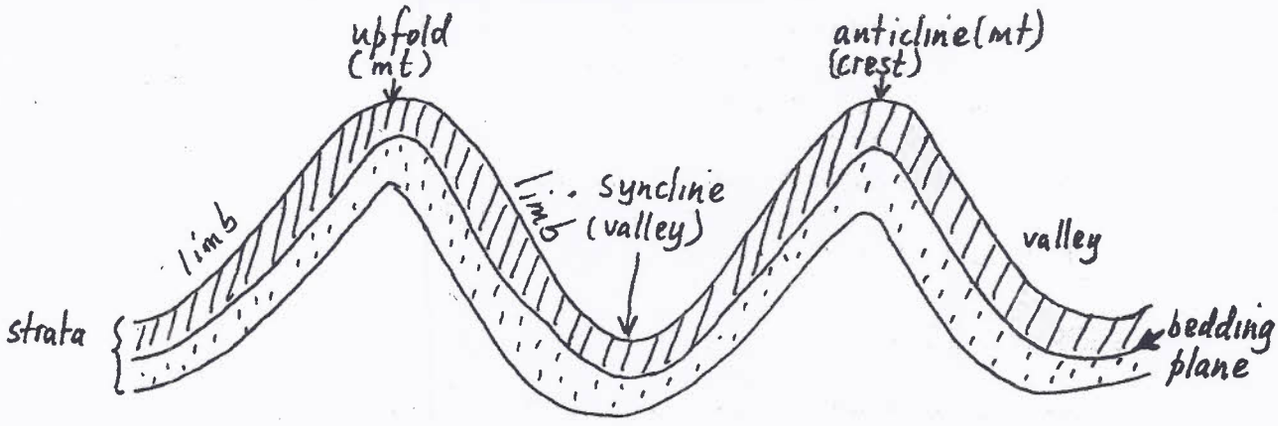
Fig. 13

(i) Using map evidence only, describe and explain the pattern of trade shown on Fig. 13. (6)

(ii) Suggest measures Government should take to improve the areas of unfavourable trade shown. (4)

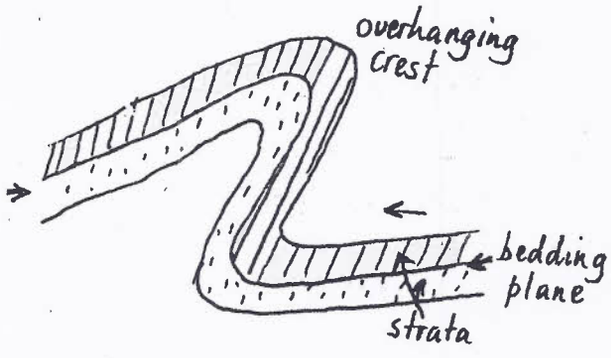
POSSIBLE ANSWERS

1 (a) (i) Diagram to show the following:

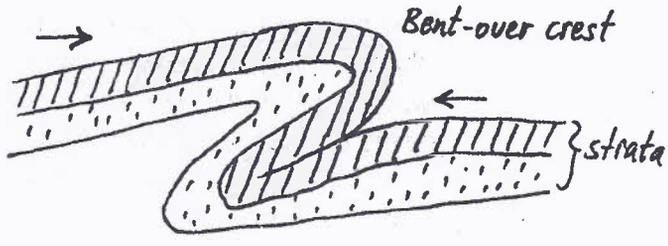


Diagrams of overfold, recumbent fold and overthrust fold are acceptable alternatives as separate answers.

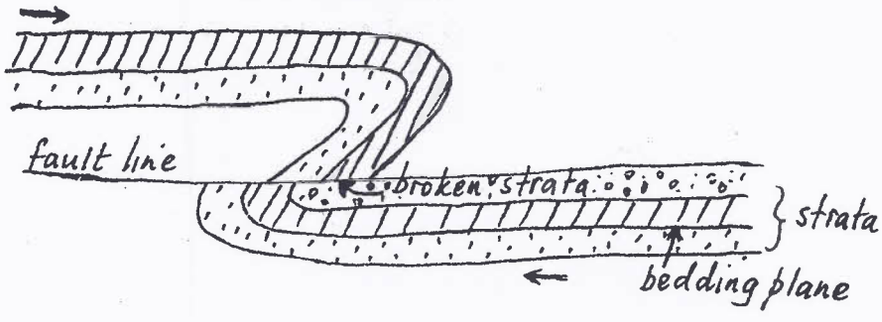
Overfold



Recumbent fold



overthrust fold/Nappe



(5)

(ii) African plate moving north at its fore was the Mediterranean geosyncline. Erosion occurred, sediments were deposited in this geosyncline. As the African plate moved northwards, it compressed the sediments on its edge which folded into anticlines and synclines forming the Atlas mountains. (5)

(iii) Description of epicentre distribution

- many in/around the Atlas Mountains/North Africa
- many around the Red Sea/North East Africa
- many along the Rift Valley/East Africa
- one in West Africa
- a few on the eastern part of Southern Africa
- mention of specific countries, e.g. many in Rwanda and Burundi/Eastern DRC. (3) {13}

(b) Benefits to people

Water to drink, water for livestock, fishing, transport, industry, fertile soils, recreation, pasture, irrigation, alluvial - mineral deposits, e.g. gold.

Environment

Plants bloom, food for herbivores, small insects, bacteria, aquatic life become active. (7) {7}

(c) The rock is heated by the sun, only the surface layer is affected because rock is a poor conductor of heat. The surface layer will expand because of the heat, by so doing it peels off from the lower main rock. At night the surface layer cools and contracts thereby peeling off from main rock. Repeated heating and cooling promotes peeling in the presence of moisture. (5) {5}
[25]

2. (a) (i) Formation
- Over ocean
- North of Madagascar
- Sea surface temperature high/27°C
- Low pressure area.

Movement - S.W. along Mozambique channel/between Mozambique and Madagascar
cyclone deepens/intensifies

Decay - over land, loss of moisture/weakness (5)

(ii) deaths, flooding, homelessness, food destruction contamination of water, destruction of communication lines, diseases. (3)

(iii) evacuation, temporary shelter, food supply, clean water supply, medical aid, burying the dead, rescue operations. (7) {15}

(b) (i) Station X - Savanna, high temperatures cool and dry in winter, warm and wet summer, high temperatures; October to March, low temperatures; April to September.

Station Y - Mediterranean, cool wet winters, warm dry summers, high temperatures April to September, low temperatures October to March. (6)

(ii) Each point to be linked to climate.
For both X and Y ploughing, planting, weeding, protecting crops from frost, irrigation, harvesting, tourism, etc. (4) {10}
[25]

3. (a) (i) An ecosystem - the inter-relationships between the living (biotic) and non-living (abiotic) things in any area. (2)

(ii)

Input P	-	solar energy, carbon dioxide
Process R	-	uptake of nutrients/osmosis/capillary action/absorption
Loss S	-	leaching, nutrient loss
Output T	-	heat/gases, water vapour (4)

(iii)

Process/feature	Function
Photosynthesis	- to provide food to the tree
Shade for roots	- to keep moisture for the tree
Leaf fall	- to provide humus, humic acid for chemical weathering, reduce transpiration
Leaves	- to intercept rainfall - to prevent erosion - to provide food for animals, shelter
Roots	- bind soil/reduce erosion, improve infiltration - anchor the plant

Transpiration - cooling, provides moisture, provides/recycles air, i.e. oxygen and carbon dioxide. (5) {11}

(b) Positive effects

Irrigation	-	makes soils intact to prevent erosion, bacteria become active, preventing drying of soils.
Fencing	-	preventing over grazing, to protect parts of the land.
Afforestation	-	binding soils together, increasing biodiversity,
Cropping	-	soil erosion prevented, biodiversity improved.
Ploughing/cultivation	-	aeration of soil, improved infiltration.

Negative effects: The process/land use activity to be identified and effects described as follows:

Ploughing	-	breaks the soil, erosion promoted.
Use of machinery	-	compaction of soil, destruction of soil structure/texture, plough pan effect.
Irrigation	-	salinisation, leaching
Deforestation	-	land is left bare, increased erosion, reduced moisture from transpiration.

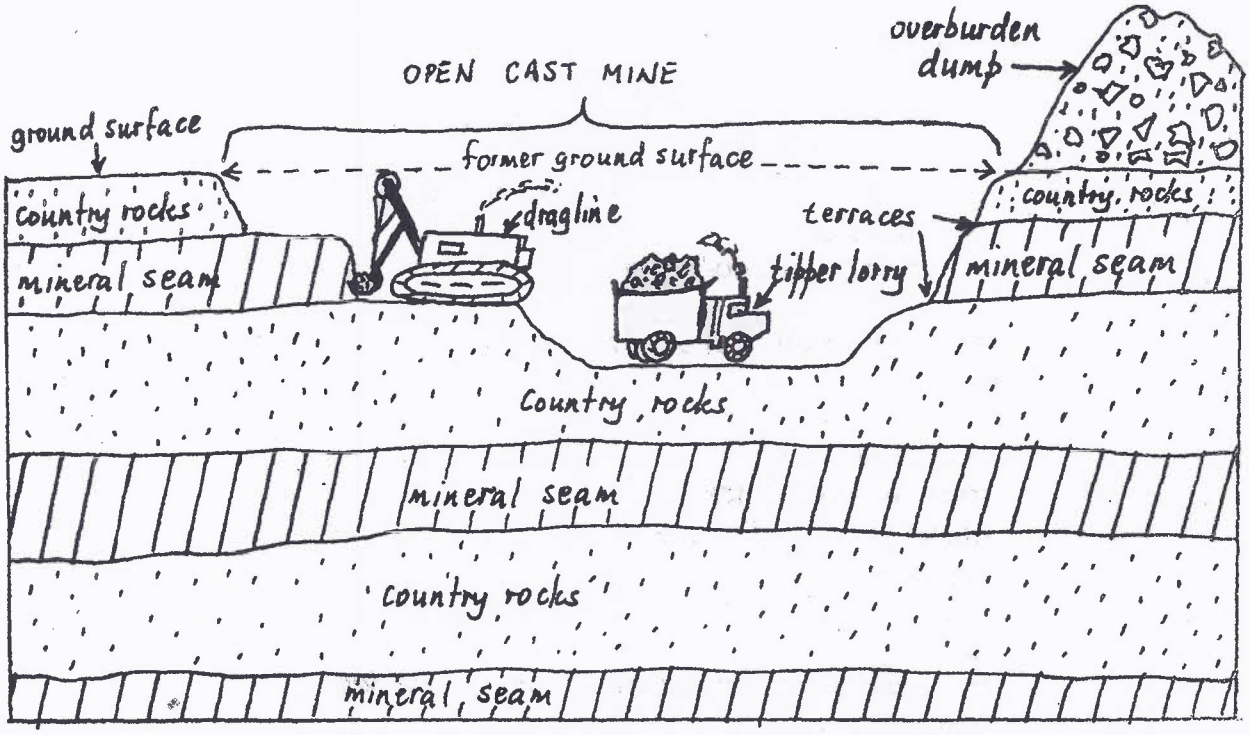
(7) {7}

(c) Shortage of water, lack of pasture, increased soil erosion, lack of firewood, reduced rainfall, death of animals, reduced food production, starvation, temperature changes/global warming, loss of biodiversity/extinction of species. (7) {7}

[25]

4. (a) (i)

Diagram	-	open cast mine,
Accept	-	the stepped structure of the mine, the dragline, tipper lorries, dumps of overburden.



(4)

(ii)

Problem	Explanation
- tunnel collapse	- shaft mining used
- flooding of mines	- seams deep under-ground
- gas explosion	- shaft mining
- mining expensive	- seams not straight faulting/broken seams shaft mining
- risky	- gas explosion/collapse/ rockfall/shafts/faults

(4) {8}

(b) (i)
- cut logs and branches
- trees reshooting from stumps
- trees in pure stands/gum trees/plantation
- trees crowded
- trees of almost the same height, ground flat, sky blue, dry leaves
- bare/brown soil, tree bark

(ii) Timber production in photograph B compared to that of indigenous forests:

- trees quickly mature,
- trees in pure stands,
- easy to control disease,
- logs are straight,
- trees are softwoods,
- easy to cut,
- trees regenerate themselves from stumps fast,
- cheaper to harvest,
- clear/cleaner cutting
- intensive use of land/more trees per unit area. (7) {10}

(c) <u>Use of coal in rural areas</u>

- conservation of woodlots
- introduction of new technology
- reduced deforestation
- more energy is produced
- better cooked food
- reduced trips for firewood collection.

<u>Mine dump reclamation</u>

- tourism promotion,
- improve beauty of the environment,
- erosion controls,
- conservation,
- pollution controls,
- control of slumping. (7) {7}

[25]

5. (a) (i) Compound bar graph/divided bar graph/percentage divided bar graph (1)

(ii) Dande: tools 32 to 34%
Gutu: land problems 38%. (2)

(iii) Reasons:

- almost all land used up
- small percentage with tool problems
- large percentage of farmers satisfied
- small percentage with cash problems
- small percentage with labour problems. (4)

(iv) Solutions to Dande problems

Draught power: kill tsetse, restock, give tractors/ tillage units, use of donkeys

Tools: provide tools, more hoes, steel ploughs, harrows, planters

Pests: spray, burn, biological control, e.g. permaculture.

Cash: loans (7) {14}

(b) Physical inputs:

soil, water, land, temperature, air, climate.

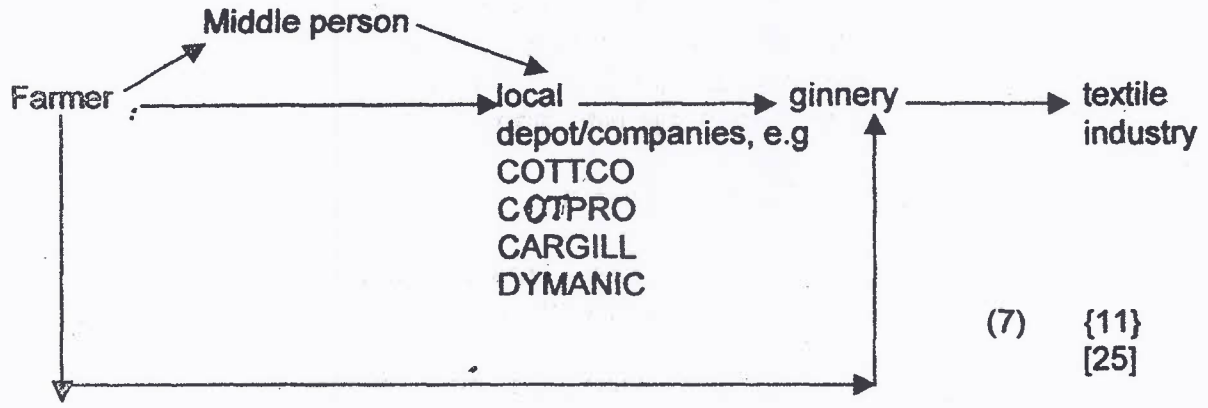
Human inputs:

labour, fertilizers, chemicals, machinery, seeds, knowledge/skills. (4)

Processing:

ploughing, hoeing/weeding, spraying, picking/harvesting, packing, grading, baling, grading, ginning, washing, carding, spinning, packing, lint baling.

Marketing : as flow line shows



(7) {11}
[25]

6. (a) (i) Low: making use of wooden ploughs, spears, basketry, craft industries, cottage industry

Intermediate: iron and steel industries
High: computer industries, cellular phones making (3)

(ii)
- low technology in the country
- reduced need for hi-tech industries/poor local market
- expensive to support/lack of capital
- back-up services poor
- poor skills
- poor investment climate
- poor marketing strategies/innovativeness (4)

(iii)
- mass production/line production
- recycling
- reduction of waste products/efficient/non-polluting
- assembling of components
- standard equipment/products, ISO standards (4)

{11}

(b) (i) Answer with description and explanation to include,

- Iron and steel in the south:- close to water and rail
- Cement at Helwan:- close to rail and labour
- Spinning and weaving in area 6:- close to farming area and rail
- Cigarettes and sugar in area 5:- close to farming area, main railway line, market, water

- close to railways line - transport
- close to Nile river - water (7)

(ii) Hazards - water and air pollution, noise pollution, destruction of vegetation, land degradation, diseases, death of fish, land pollution/dumping

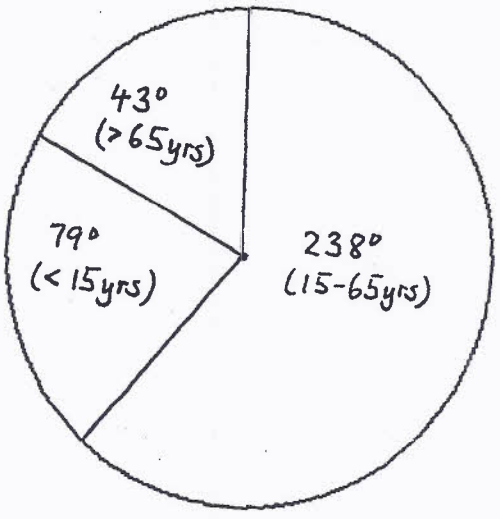
Measures - relocation of industries, strict pollution control policies, laws governing use of the land, improved technologies, waste recycling, proper dumping sites, education. (7) {14} [25]

7. (a) (i) Brazil - 37%
Italy - 31% (2)

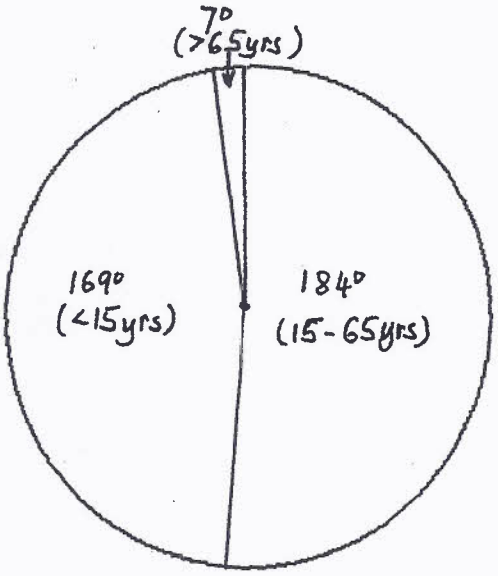
(ii) Low for Zimbabwe, followed by Brazil, highest for Italy, followed by U.S.A. (3)

(iii) The diagram can be bar graphs or pie charts.

Either: As Pie-Charts

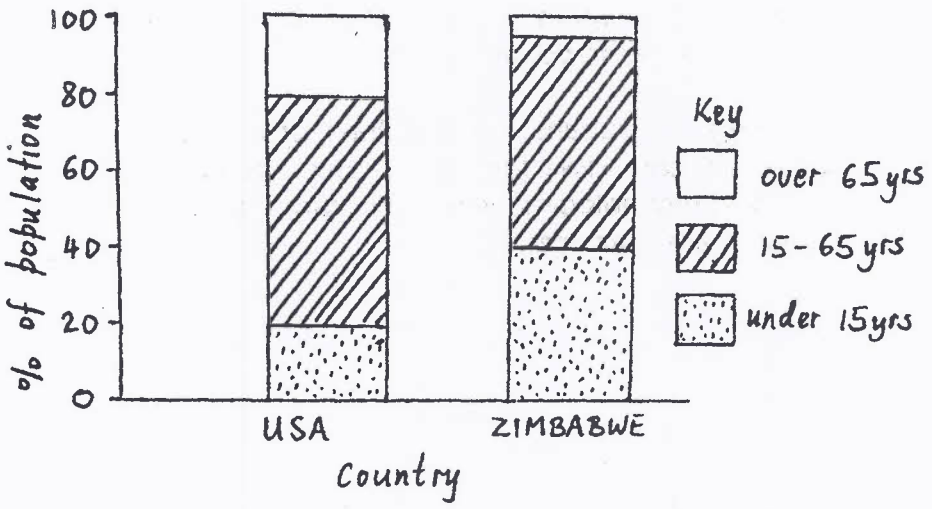


USA



ZIMBABWE

Or: As Bar graph (divided/compound)



NB. For bar graphs three bars for three age groups each country can be drawn. (6)

(iv) U.S.A. and Italy

Problems	Solutions
- future reduced labour force	- encourage population growth, immigration, capital intensive technology
- too many old people	- old peoples home have to be built
- a lot of pension funds needed	- national social security programmes
- reduced population therefore reduced market	- encourage population growth, export goods

Zimbabwe and Brazil

Problems	Solutions
- too many dependants	- population control/social security/old people's homes
- strain on the labour force	- population control
- unemployment/need to create more jobs	- investment
- inadequate facilities/need for more schools, clinics	- build more, population control

(7) {18}

(b) (i) overpopulation, famine/drought, wars, jobs in mines/farms, attraction in the form of more land and fertile soils, flooding, volcanoes, intermarriages, social interaction/conflict.

(3)

(ii) Source area:

- fewer people, families separated, increased standards of living, reduced pressure of social services, under-utilised services/infrastructure, decline in development.

Receiving area:

More people, new social relations, cultural conflicts, better living standards, scarce facilities, e.g. resettlement areas. (4) {7}

[25]

8. (a) (i)
- many on the flood plain
- linear along the Zambezi
- linear along the escarpment
- scattered on the plateau
- circular around pans and dambos (wetlands) (4)

(ii) Reasons for distribution as described in (i) above:

Flood plain	-	flat, fertile, for water, for fish.
Escarpment	-	free from floods, easy to build, spring water, free from diseases.
Plateau	-	flat, free from floods, diseases, cooler, for defence.
Dambos	-	water, fish, fertile soils. (4)

(iii)

Problems	Solutions
-flooding-death	-transhumance, evacuation
-malaria	-spraying
-bilharzia	-spraying and draining water
-wet soils/waterlogging	-drainage (7)

(b) (i) This is the rapid growth of cities and towns due to increased population or physical structure. (2)

(ii)
- highest in Algeria
- 2nd highest in RSA, CAR, Egypt, Libya, Tunisia & Morocco, Zimbabwe
- followed by Central Africa and West African countries
- least urbanized, Mozambique to Ethiopia belt, Niger, Chad, Burkina Faso, Benin, Togo, Guinea. Namibia, Botswana. (4)

(iii) poor housing, unemployment, squatting, strain on resources/health, education etc. increased crime, overcrowding, spread of diseases, reduced living standards, street kids/people/vagrants, prostitution, pollution, traffic congestion. (4) {10}
[25]

9. (a) (i) higher volume for bus in 12A than 12B, no commuters in 12B, lower train traffic 12B/started later than in 12A, air travel in 12B was lower, lower volume in 12B than 12A for all traffic types. (4)

(ii)
- higher bus in 12A - more passengers
- no commuter omnibuses in 12B - competition/ dominance of bus travel
- lower air traffic - lack of passengers, slump in economic activities/tourism
- greater demand for commuter omnibuses in 12A

- more volume in 12A - linking bigger cities/towns (4)

(iii)

Problems	Solutions
- accidents/overspeeding	- more policing/defensive driving
- overcrowding	- police patrols/more buses/ use trains
- poor/narrow roads	- widen roads, resurface roads
- touts	- ban them
- shortage of fuel	- buy more/more forex
- spare parts shortage	- forex availability (7) {15}

(b) (i)
- along the central axis/highveld → linking towns
- mainly the main towns and cities → good
- transport, good market, trained labour force, many RMS, cool
- less in the lowvelds→ less transport, less labour, less market, harsh physical environment (6)

NB: Description/distribution linked to explanation.

(ii)
- develop tourism in these areas
- establish EPZs
- improve agriculture/transport networks/ power supplies
- resettle people in these areas
- establish growth points. (4) {10}

[25]

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ZIMBABWE SCHOOL EXAMINATIONS COUNCIL

General Certificate of Education Ordinary Level

GEOGRAPHY 2248/1

PAPER 1 Multiple Choice

Thursday 29 NOVEMBER 2001 Morning 1 hour 15 minutes

1:50 000 Survey Map is enclosed with this question paper
Additional materials:
Multiple choice answer sheet
Soft clean eraser
Soft pencil (type B or HB is recommended)

163227

TIME 1 hour 15 minutes

INSTRUCTIONS TO CANDIDATES

Do not open this booklet until you are told to do so by the invigilator.
Write your name, Centre number and candidate number on the answer sheet in the spaces provided unless this has already been done for you.

There are **forty** questions in this paper. Answer **all** questions. For each question there are four possible answers, **A, B, C** and **D.** Choose the **one** you consider correct and record your choice in **soft pencil** on the separate answer sheet.
Read very carefully the instructions on the answer sheet.

INFORMATION FOR CANDIDATES

Each correct answer will score one mark.
A mark will not be deducted for a wrong answer.
Any rough working should be done in this booklet.

This question paper consists of 24 printed pages.

[Turn over

Map work

Questions 1 to 12 refer to the 1:50 000 map of Mvuma (Zimbabwe).

1. What is found at grid reference 448556?

   A bridge
   B junction
   C plantation
   D village

2. The dip tank which is about 1,5 km north of Fairfield Siding (4455) is found at grid reference point

   A 446572.
   B 454588.
   C 572446.
   D 588454.

3. Which of the following grid squares has the highest number of huts?

   A 4567
   B 4667
   C 4566
   D 4666

4. The dominant land-use in grid square 4554 is

   A cultivation.
   B plantation.
   C settlement.
   D transport.

5. What is the length of the aerodrome running across grid squares 3867 and 3967

   A 800 metres
   B 1 000 metres
   C 1 200 metres
   D 1 400 metres

6. The grid bearing of trigonometrical station 1542 in grid square 4165 from spot height 1428 in grid square 4567 is

A 65°.
B 115°.
C 240°.
D 295°.

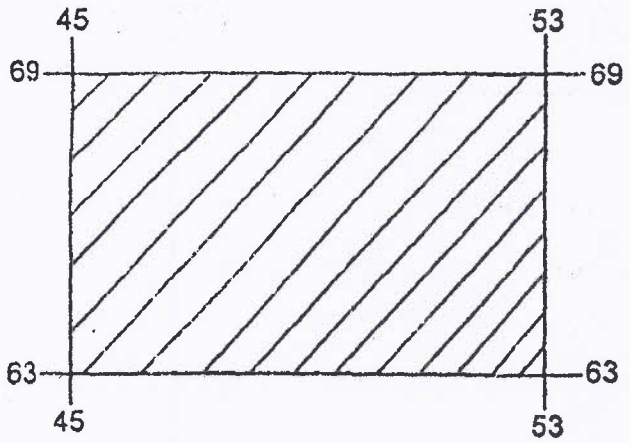
7. A tourist standing next to trigonometrical station 1542/S in grid square 4165 facing north-west observes a spectacular man-made feature standing out some 700 metres away. The feature is a

A cemetery.
B chimney.
C dump.
D school.

8. The landform on which Mtao forest plantation is situated is a

A marsh.
B ridge.
C valley.
D watershed.

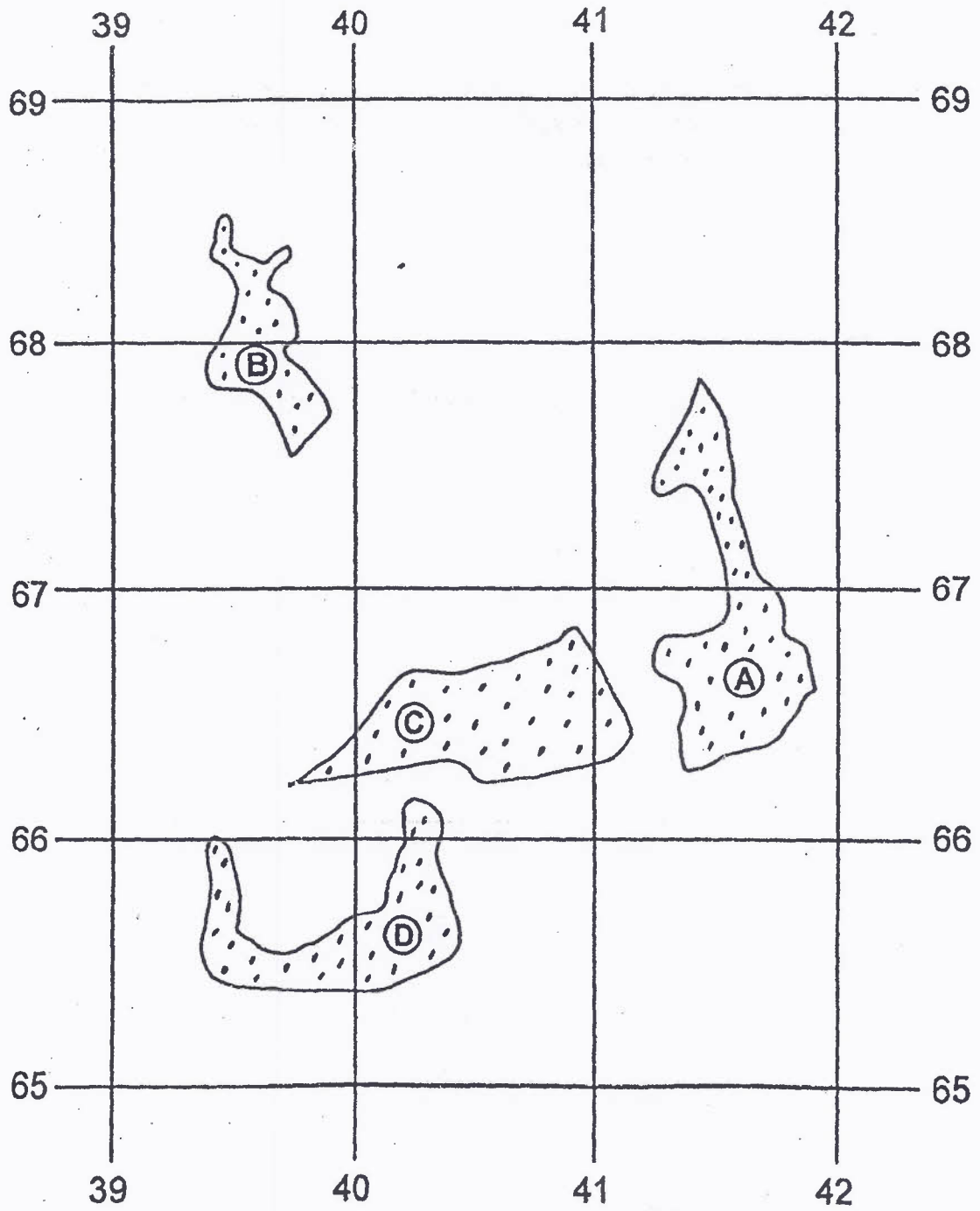
9. Study the map area shown below.



The settlement pattern in the shaded area is mainly

A clustered.
B dispersed.
C linear.
D radial.

10. Study the map area shown below.



Which of the shaded land use zones A, B, C or D represents recreational land in Mvuma?

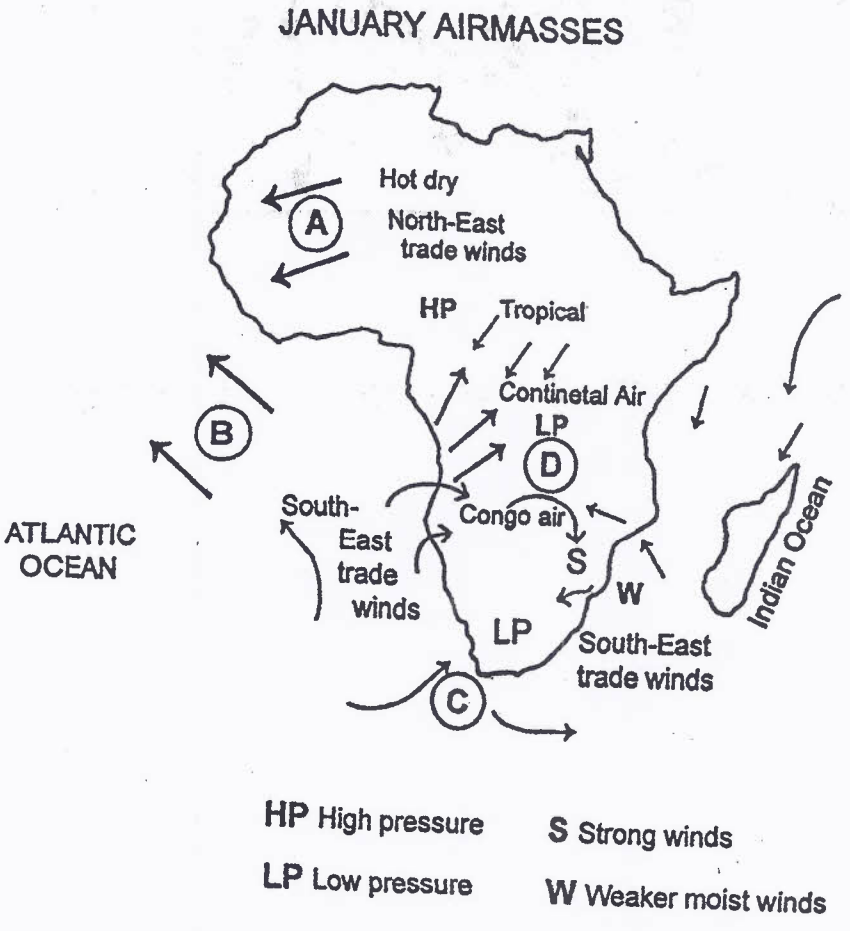
11. The dominant natural vegetation in grid square 4960 is

A cultivation.
B bush.
C plantation.
D marsh.

12. Which of the following grid squares has the highest number of streams?

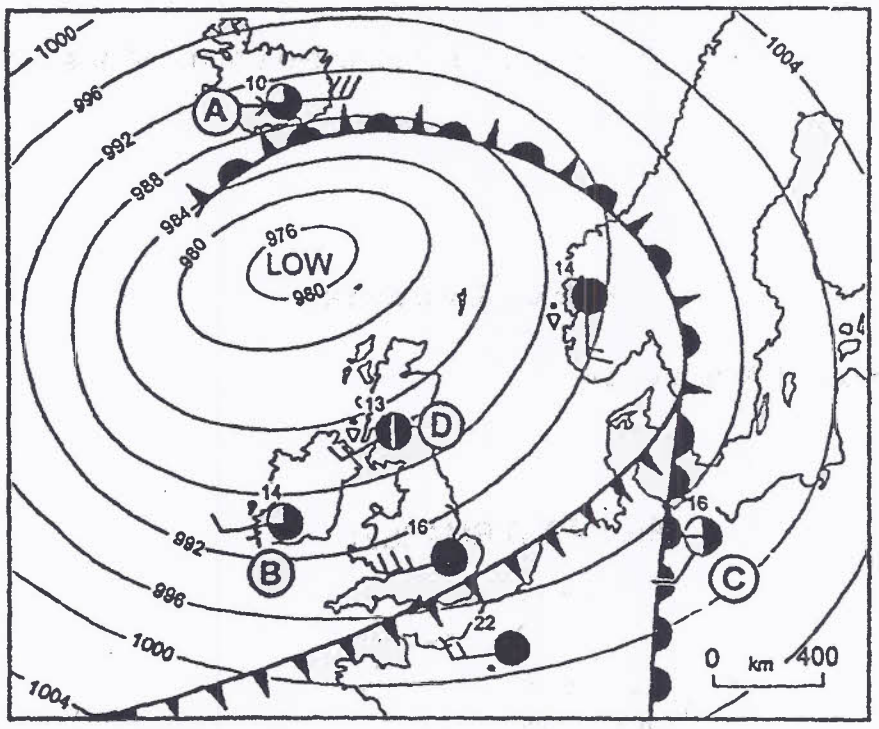
A 4366
B 4466
C 4566
D 4666

13. Study the map of Africa below.



At which of areas A, B, C or D is a tropical thunderstorm most likely to develop?

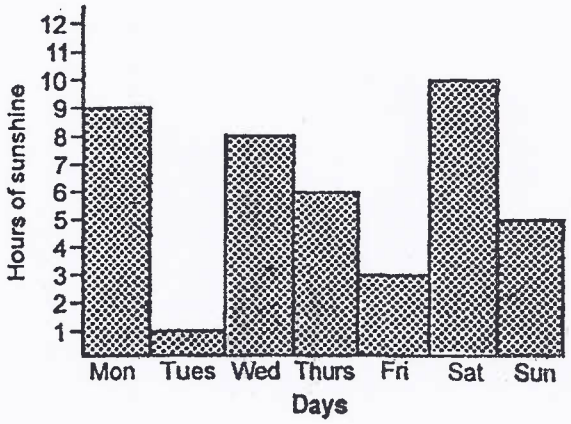
14. "The skies were nearly overcast; a South-west wind blowing at a speed of 15 knots was accompanied by a rain shower."



To which of stations **A, B, C** or **D** is the weather report referring?

15. Study the diagram below.

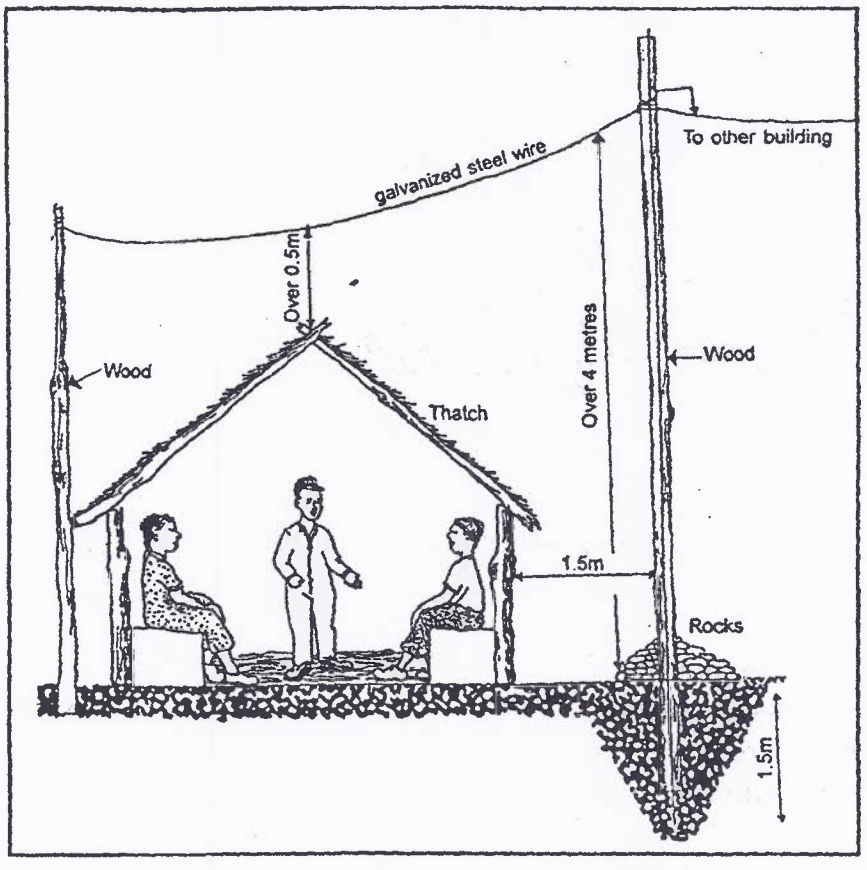
SUNSHINE HOURS AT A SCHOOL WEATHER STATION



The period that showed the greatest change in sunshine conditions at the station was

A Monday to Tuesday.
B Tuesday to Wednesday.
C Friday to Saturday.
D Saturday to Sunday.

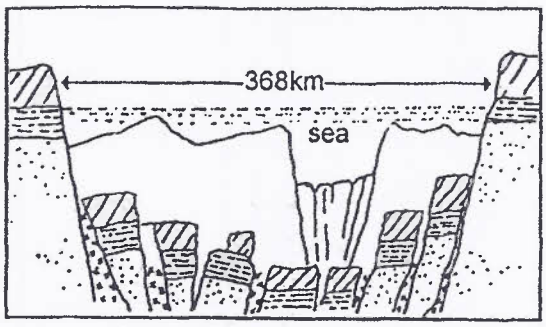
16. The diagram below shows a mechanism for protecting people against a weather hazard.



The weather hazard is

A flooding.
B hail.
C lightning.
D wind.

17. The diagram below shows the rock structure of part of the seabed.

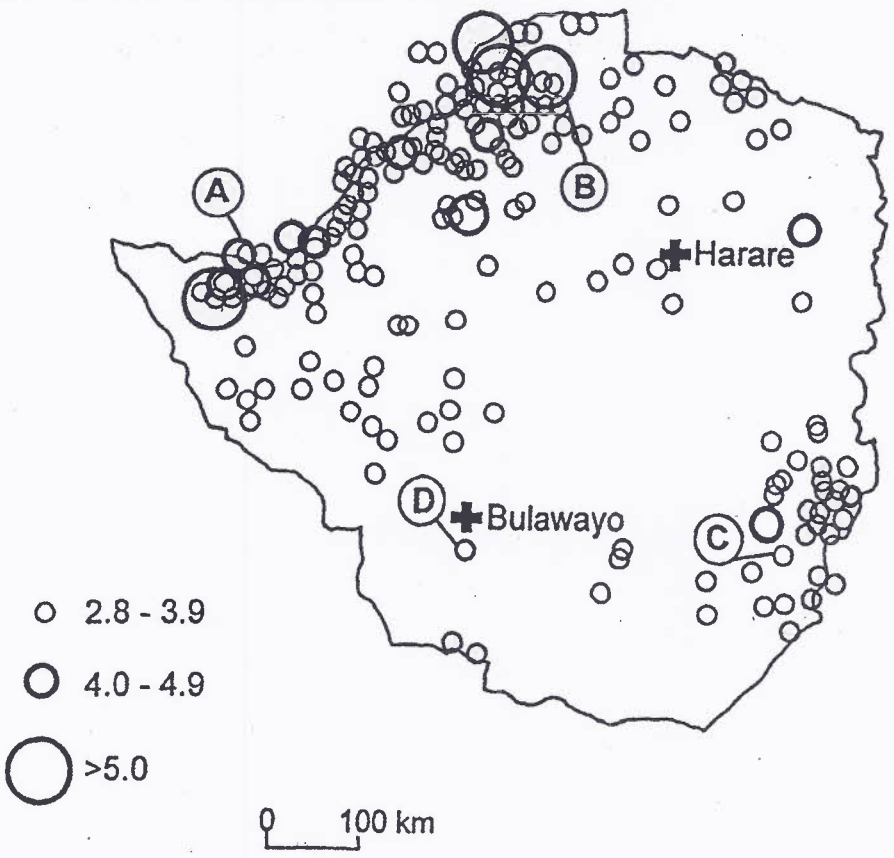


Which of the following processes resulted in the formation of this feature?

A reverse faulting
B overthrust folding
C simple folding
D normal faulting

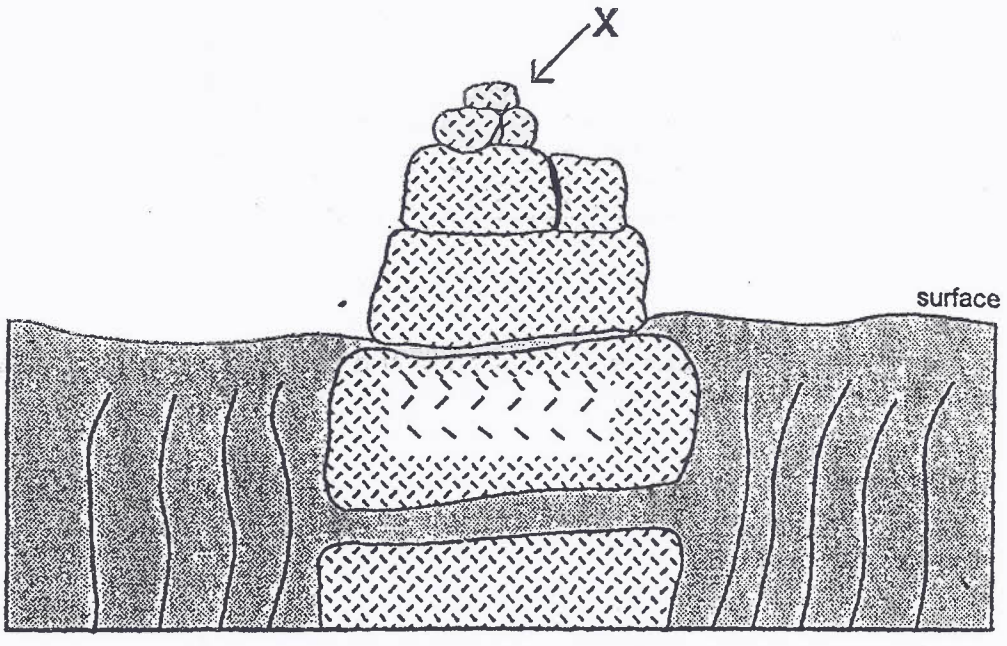
18. Study the map below.

DISTRIBUTION OF EARTHQUAKES IN ZIMBABWE



Which of centres A, B, C or D would provide an ideal site for the construction of sky scrappers?

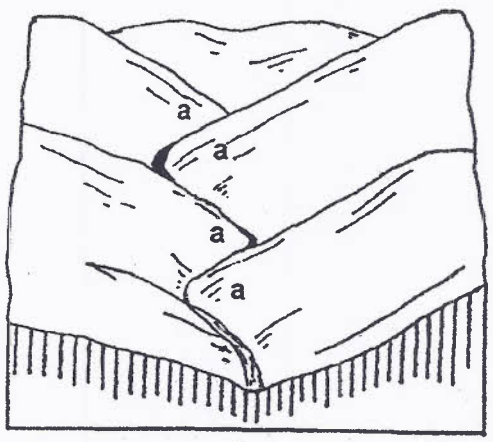
19. Study the diagram of a granite rock structure shown below.



The main process that contributed to the formation of feature X was

A carbonation.
B exfoliation.
C hydration.
D hydrolysis.

20. The diagram below shows part of a river valley.



Features marked 'a' are

A lêvees.
B bluffs.
C interlocking spurs.
D meander terraces.

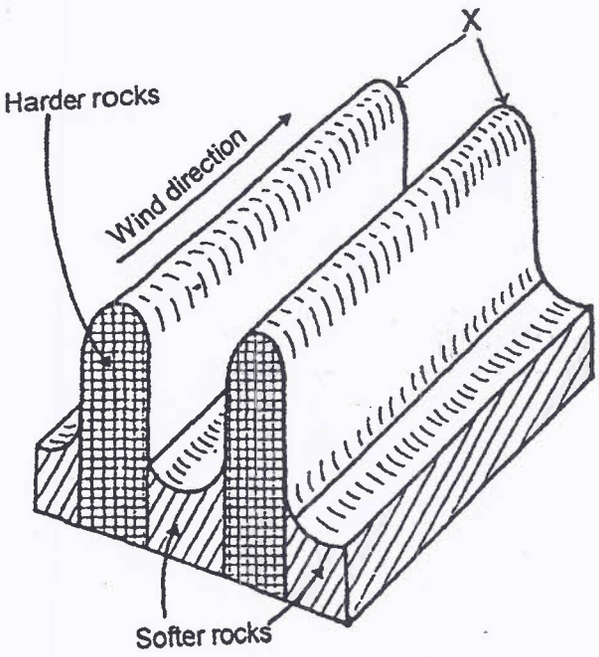
21. Which one of the following processes is mainly responsible for the formation of potholes on a river bed?

A corrasion
B attrition
C solution
D deposition

22. Hot deserts are located on the western sides of continents because

A the coasts are washed by warm currents.
B the ITCZ is commonly experienced there.
C anticyclonic conditions prevail.
D the trade winds blow on shore.

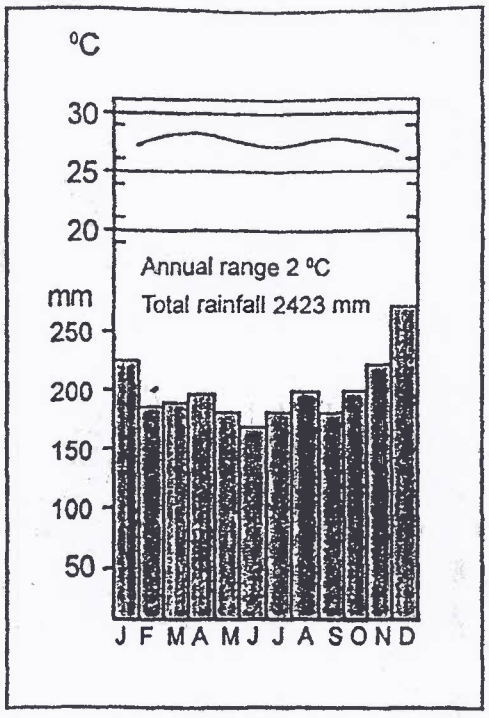
23. Study the diagram below which shows features produced by wind erosion in deserts.



The features marked **X** are

A clints.
B dunes.
C pedestals.
D yardangs.

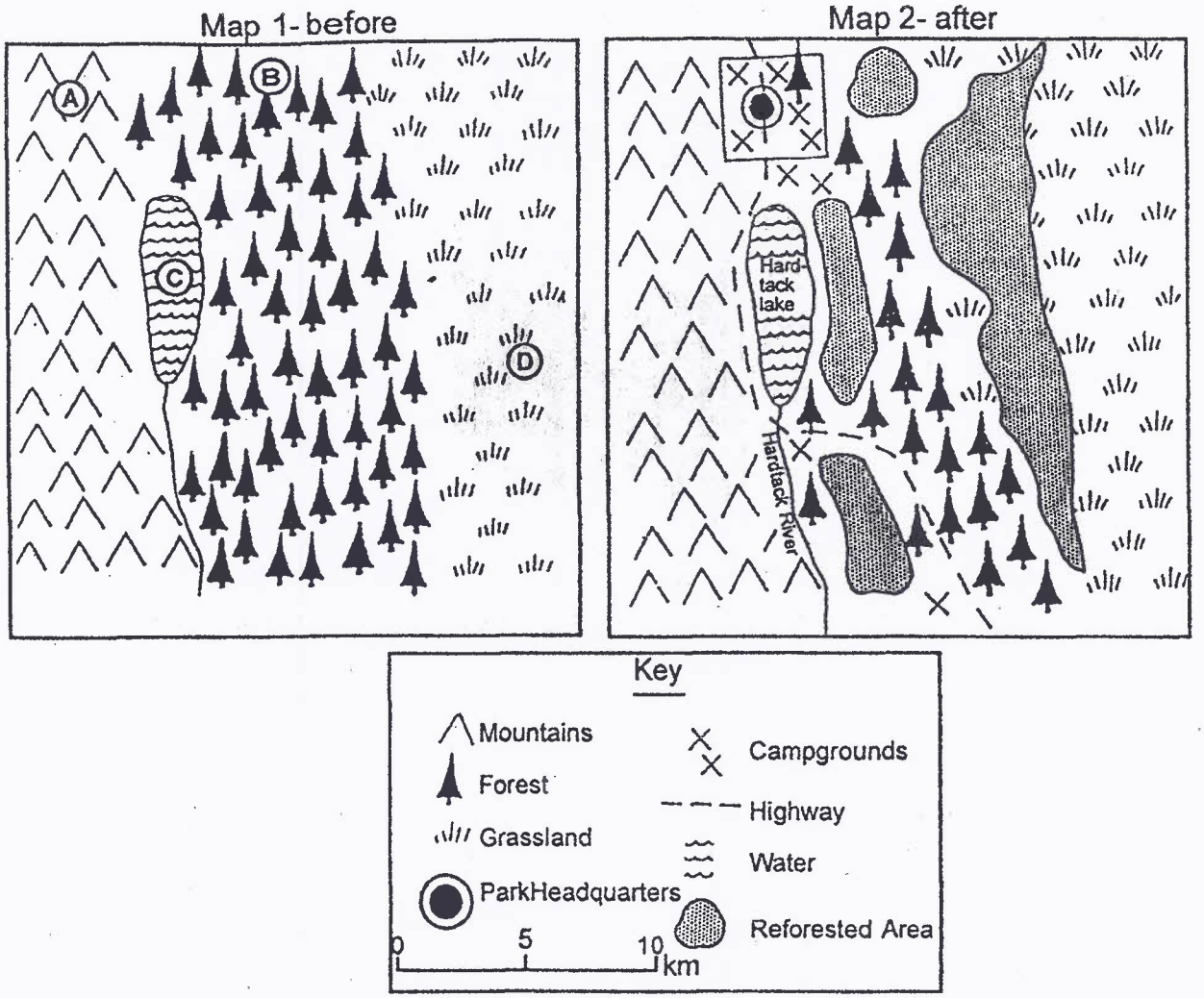
24. Study the graph below.



The natural vegetation that is most likely to develop under these climatic conditions is

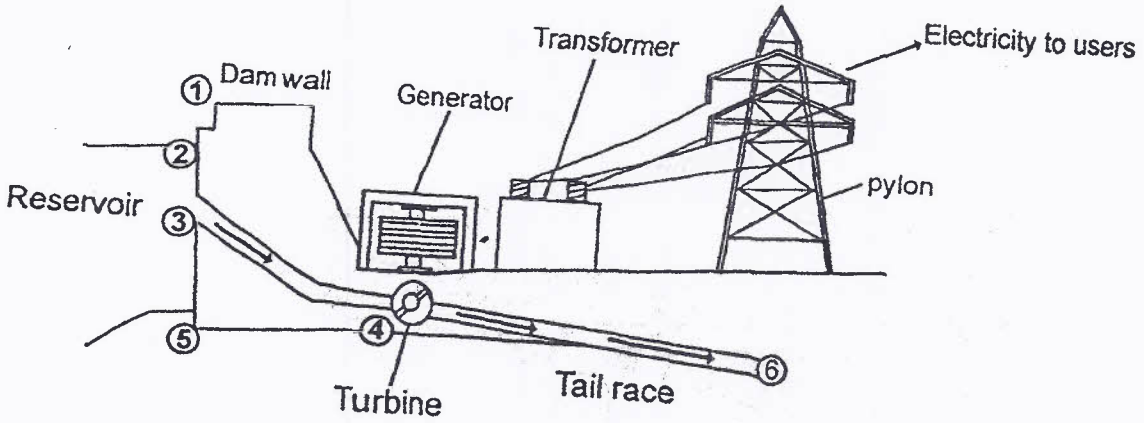
A rain forest.
B grass land.
C monsoon forest.
D Mediterranean evergreen.

25. Maps 1 and 2 show the environmental conditions of an area before and after human occupation respectively.



Which of ecosystems **A**, **B**, **C**, or **D** experienced the greatest changes?

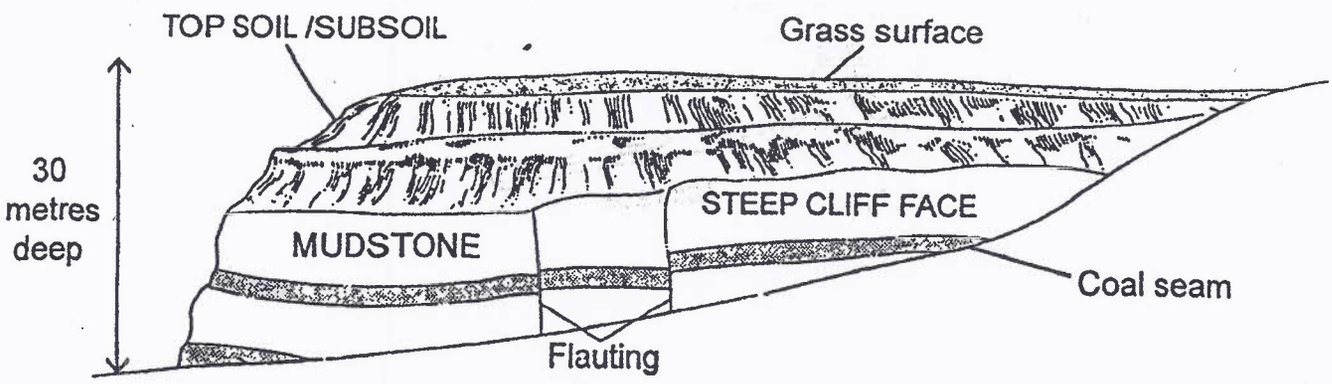
26. The diagram below shows a hydroelectric power plant.



The amount of power generated is mainly determined by the drop of water between points

A 1 and 6.
B 2 and 3.
C 2 and 4.
D 2 and 5.

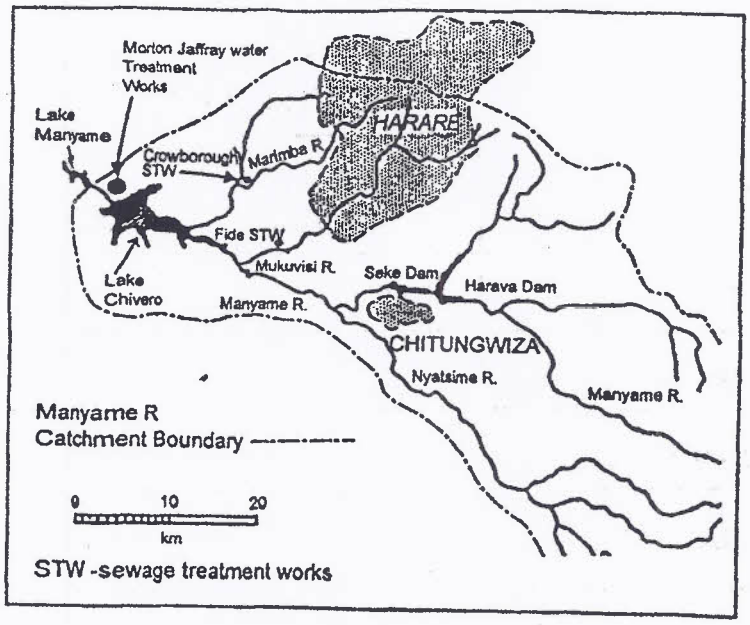
27. Study the diagram below which shows the rock structure of a potential mining site.



Which of the following mining methods would be most suitable for exploiting the coal seams?

A alluvial
B drift
C open-cast
D shaft

28. The map below shows sources of water for Harare and Chitungwiza.



Which of the following sources would provide Harare and Chitungwiza with the least polluted water?

A Lake Manyame
B Seke Dam
C Lake Chivero
D Harava Dam

29. What is the most important aim of resettling people?

A to increase social services
B to house flood victims
C to accommodate refugees
D to relieve population pressure

30. Study the table below which shows production of four crops in Chiweshe communal area.

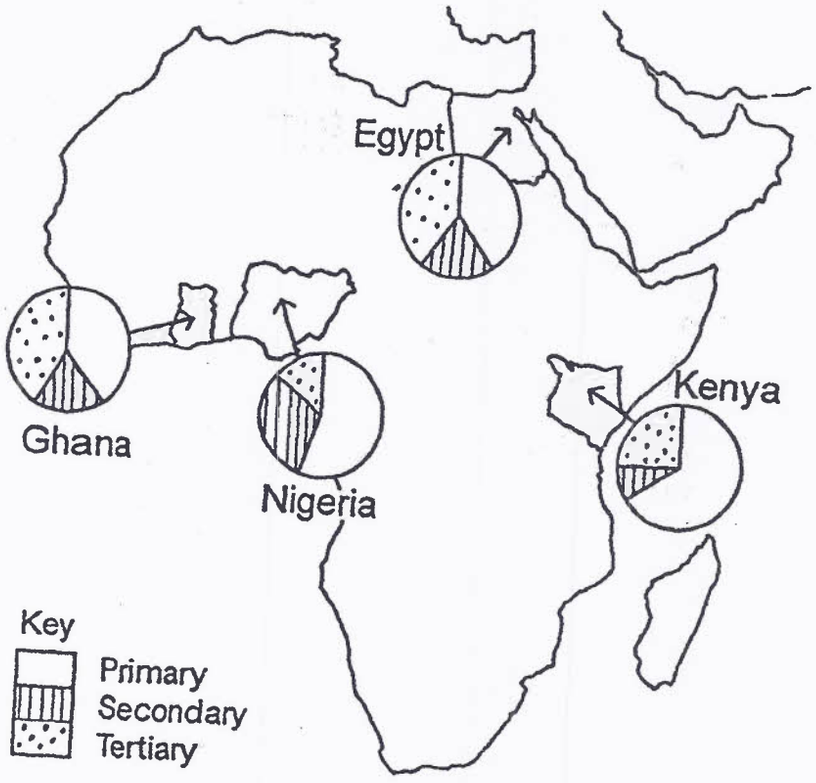
	CROP	PRODUCTION IN BAGS PER HECTARE	
		1980 – 81 Good Rains	1981 - 82 Drought
A	MAIZE	12,5	4,8
B	SORGHUM	9,7	2,4
C	GROUNDNUTS	12,5	5,0
D	BULRUSH MILLET	8,8	2,7

Which of crops **A, B, C** or **D** suffered the greatest drop in production during the drought years?

31. The type of farming where farmers maintain a permanent home but rotate their fields is

A shifting cultivation.
B bush-fallowing.
C co-operative farming.
D nomadic herding.

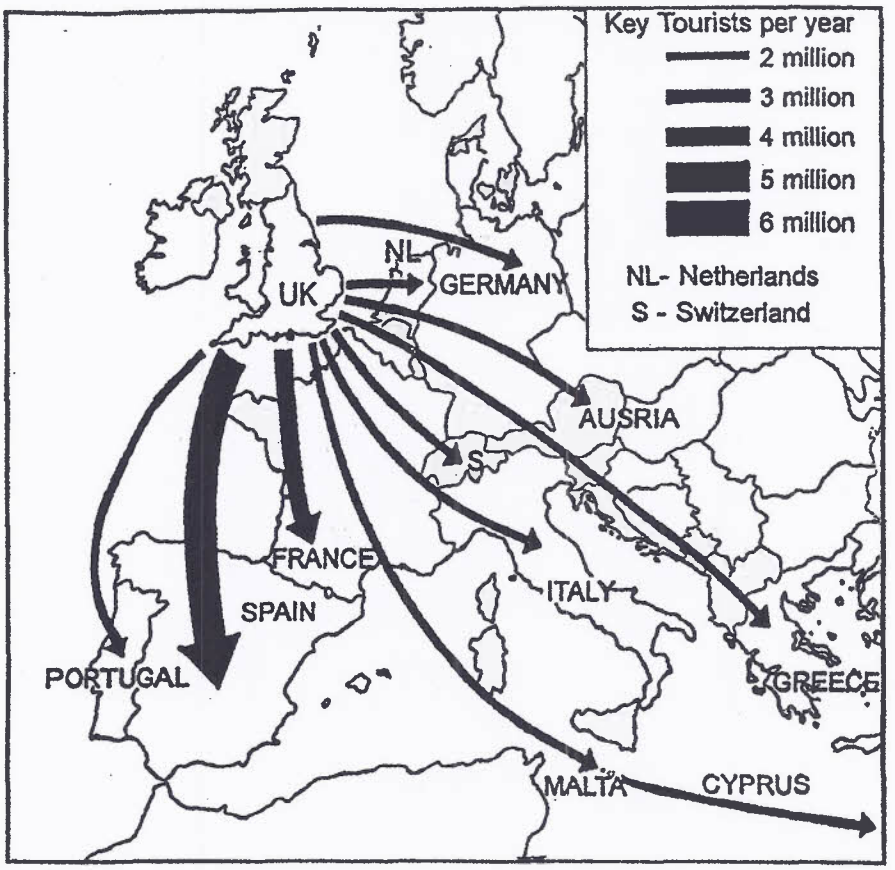
32. The map below shows the percentage of workers employed in various sectors of industry in four countries.



Which of the countries has the least developed economy?

A Egypt
B Ghana
C Kenya
D Nigeria

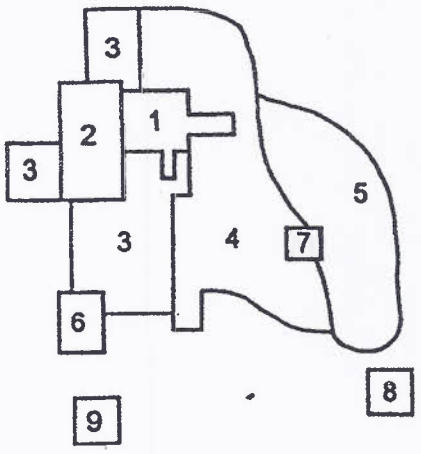
33. Study the map below which shows the movement of tourists from Britain into Europe.



How many more British tourists went to the rest of Europe as compared to Portugal, Spain and France?

A 2 million
B 4 million
C 6 million
D 8 million

34. The diagram below represents a land-use model of a town.

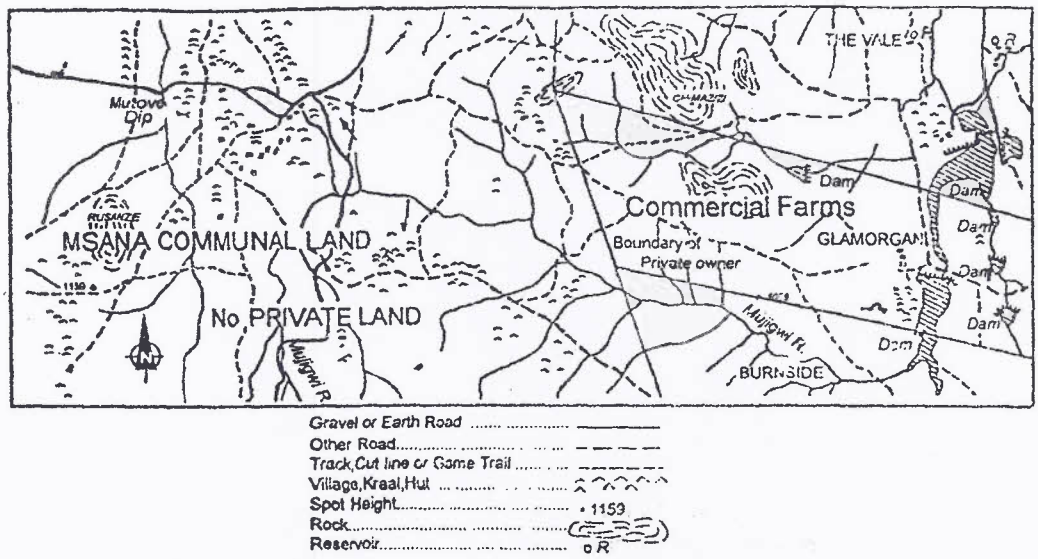


1 Central Business District
2 Wholesale,Light manufacturing
3 Low class residential
4 Medium class residential
5 High class residential
6 Heavy manufacturing
7 Outlying Business District
8 Residential suburb
9 Industrial suburb

Which of the following land-use zones would represent the residence and place of work of an unskilled worker employed at a large metal smelting plant?

A 3 and 1
B 4 and 2
C 4 and 7
D 3 and 6

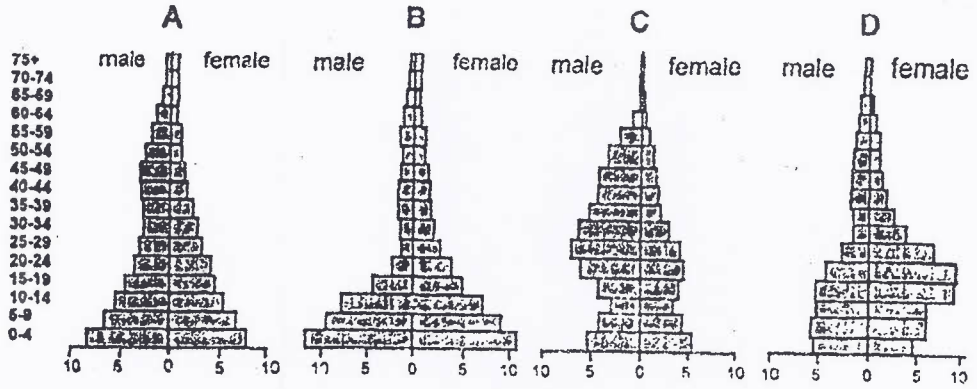
35. Study the map below.



Which of the following accurately describes the settlement pattern in the communal land and commercial farms respectively?

A haphazard and circular
B linear and clustered
C dispersed and radial
D nucleated and scattered

36. Study the age – sex diagrams below.

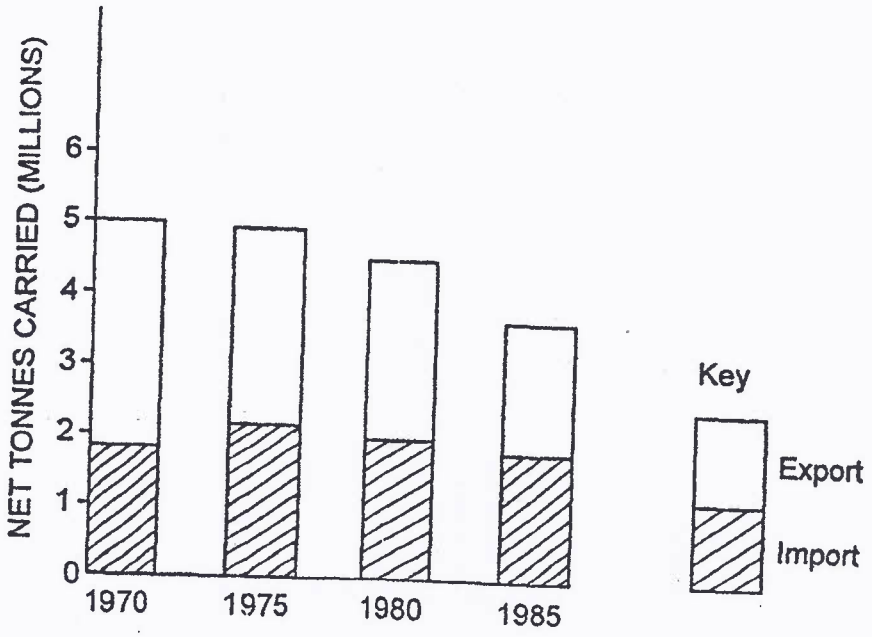


Which of structures A, B, C or D would represent the population structure of a mining settlement?

37. Which of the following health problems would confront volunteer workers to a flooded settlement following a tropical cyclone?

A measles and river blindness
B malaria and cholera
C sleeping sickness and chicken pox
D polio and hepatitis B

38. The bar graphs below show goods carried by the National Railways of Zimbabwe.



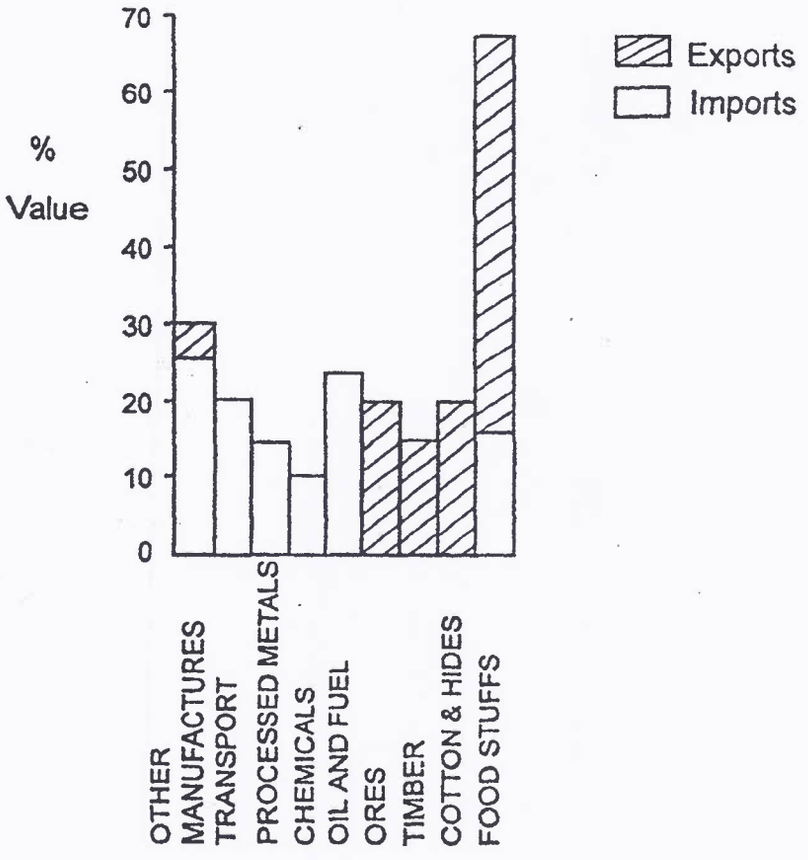
During which of the following periods did the goods carried show the greatest difference between exports and imports?

A 1970
B 1975
C 1980
D 1985

39. Which of the following methods of transportation would be most suitable for moving milk from a dairy farm to a large urban settlement 50 kilometres away?

A air
B rail
C road
D water

40. Study the graph below.



What percentage of imports by value is Other Manufactures and Chemicals combined?

A 35%
B 30%
C 25%
D 15%

GEOGRAPHY NOVEMBER 2001

2248/01

POSSIBLE ANSWERS

MAPWORK (1:50 000 MVUMA)

1.	B	2.	A
3.	C	4.	B
5.	B	6.	C
7.	B	8.	D
9.	B	10.	A
11.	B	12.	A

ECONOMIC GEOGRAPHY

26.	C	27.	C
28.	D	29.	D
30	A	31.	B
32.	C	3.	A

PHYSICAL ENVIRONMENT

13.	D	14.	D
15.	A	16.	C
17.	D	18.	D
19.	D	20.	C
21.	A	22.	C
23.	D	24.	A
25.	B		

POPULATION, SETTLEMENT AND TRADE

34.	D	35.	B
36.	C	37.	B
38.	A	39.	C
40.	A		

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ZIMBABWE SCHOOL EXAMINATIONS COUNCIL

General Certificate of Education Ordinary Level

GEOGRAPHY 2248/2

PAPER 2

Monday 5 NOVEMBER 2001 Morning 2 hours 30 minutes

Additional materials:
Answer paper

180566

TIME 2 hours 30 minutes

INSTRUCTIONS TO CANDIDATES

Write your name, Centre number and candidate number in the spaces provided on the answer paper/answer booklet.
Answer **four** questions.
Answer **one** question from each of Sections A, B and C and **one** other question from any section.
Write your answers on the separate answer paper provided.
If you use more than one sheet of paper, fasten the sheets together.

INFORMATION FOR CANDIDATES

The number of marks is given in brackets ( ) at the end of each question or part question.
Insert 1 contains Photographs **A, B** and **C** for use with Questions 4 and 5.
Sketch maps and diagrams should be drawn whenever they serve to illustrate an answer.

This question paper consists of 15 printed pages, 1 blank page and 1 insert.

[Turn over

Section A (Physical Environment)

Answer at least **one** question from this section.

1. **(a)** Study Fig. 1 which shows the internal structure of the Earth.

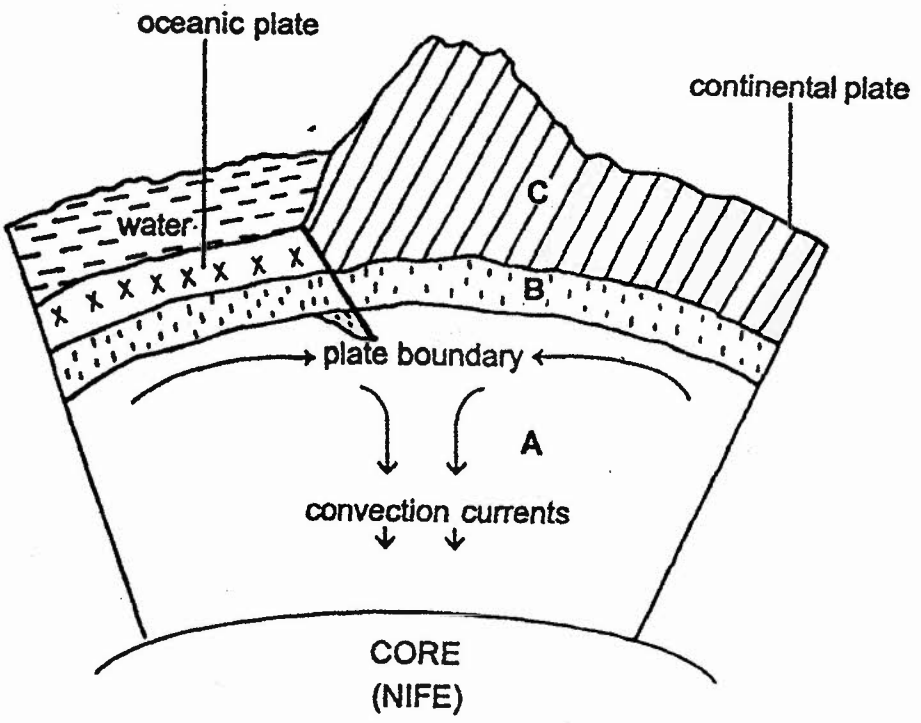


Fig. 1

(i) Name the layers marked A, B and C. **(3)**

(ii) What minerals make up the core of the Earth? **(2)**

(iii) With reference to Fig.1 and any other evidence, describe and explain the movements of both oceanic and continental plates. **(8)**

(b) **(i)** Draw a labelled diagram to show the features of the flood plain stage of a river valley. **(4)**

(ii) What, in your view, are the benefits and problems faced by people living in the upper and lower course of a river valley? **(8)**

2. (a) Fig.2 shows environmental features over Southern Africa.

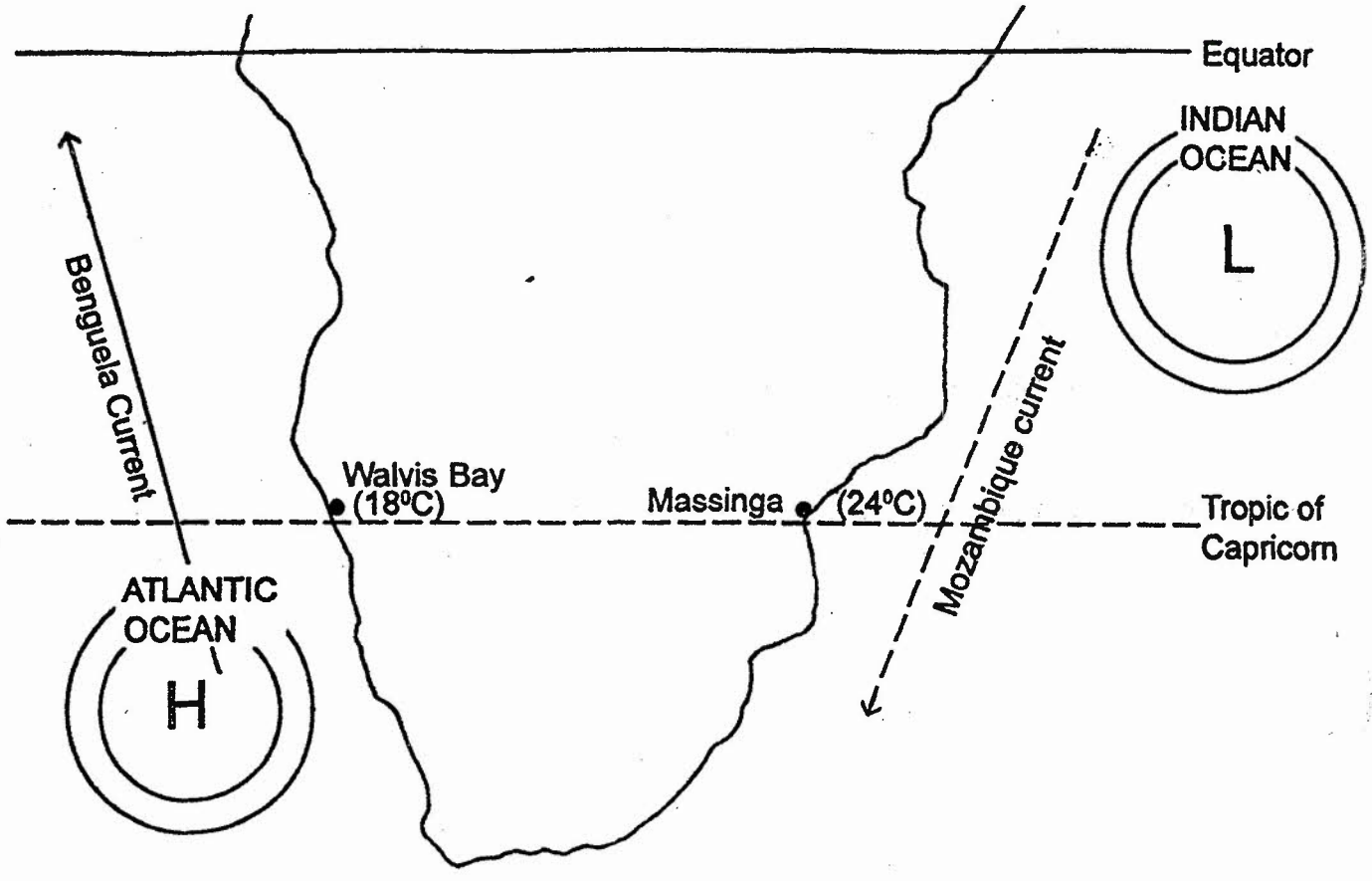


Fig. 2

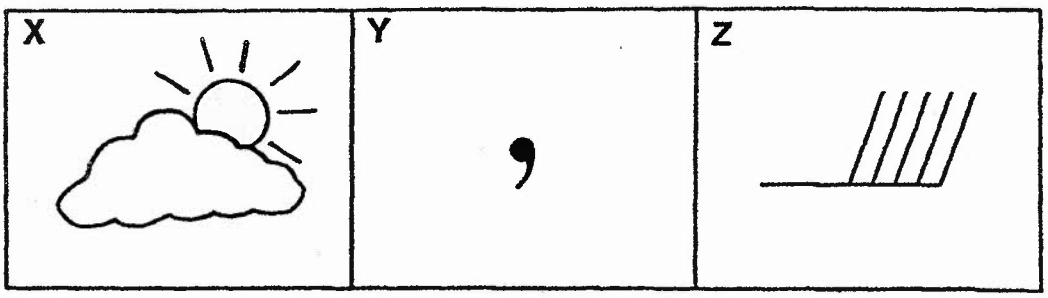
Using information from Fig. 2., answer the following questions.

(i) Describe and explain the differences in temperature between Massinga and Walvis Bay. **(4)**

(ii) State the air mass associated with each pressure pattern shown. Give reasons for your answers. **(4)**

(iii) Describe the temperature and humidity characteristics of the air mass formed in the Indian Ocean. **(2)**

(b) (i) State what each of the following weather symbols represents:



(3)

(ii) Explain how the construction of dams and the development of urban settlements influence weather conditions. (6)

(c) What weather information would you give to farmers living in high and low rainfall areas to increase their production? (6)

3. **(a)** Fig. 3 shows factors influencing ecosystems.

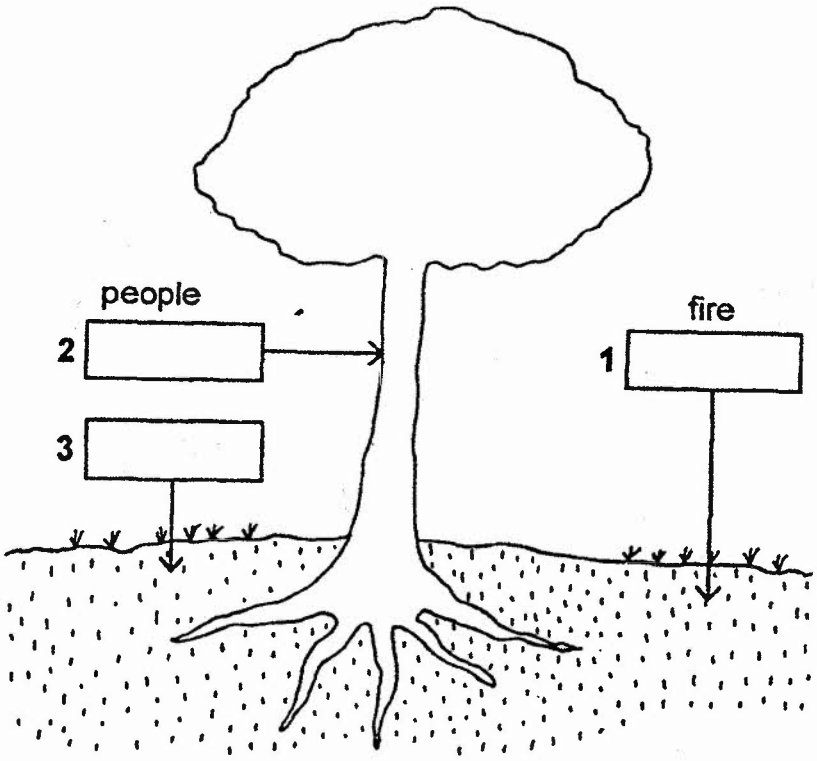


Fig. 3

(i) On your answer sheet, identify the effects 1, 2 and 3 shown. **(3)**

(ii) As a land development officer, what measures would you recommend to control veldfires? **(3)**

(b) Fig. 4 shows the distribution of Savanna ecosystems in Zimbabwe.

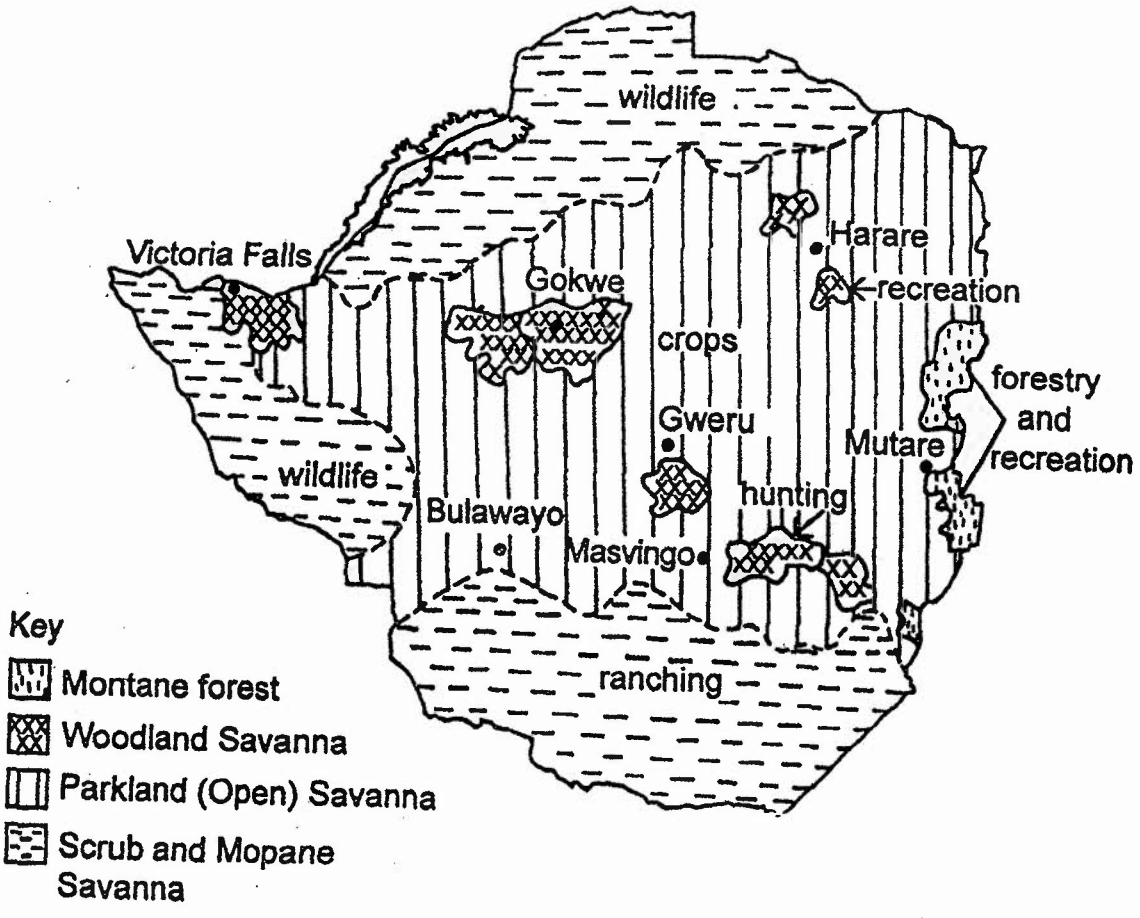


Fig. 4

(i) Describe the distribution of the ecosystems shown. **(4)**

(ii) Describe the relationship between the ecosystems and the landuses shown. **(4)**

(ii) Choose one ecosystem and explain the problems which have arisen from the landuse shown. **(4)**

(c) Describe the positive and negative effects of irrigation to the arid and semi-arid ecosystems. **(7)**

Section B (Economic Geography)

Answer at least one question from this section.

4. **(a)** Photograph A (Insert 1) shows the exploitation of the tropical rainforest.

(i) Describe the methods used to cut the forest. **(3)**

(ii) Describe the problems associated with the exploitation of the tropical rainforest shown. **(4)**

(iii) What steps must be taken to conserve the tropical rainforest? **(4)**

(b) Fig. 5 shows coal consumption for energy purposes in Zimbabwe, 1955 – 1990.

ZIMBABWE: COAL CONSUMPTION FOR ENERGY PURPOSES (1955-1990)

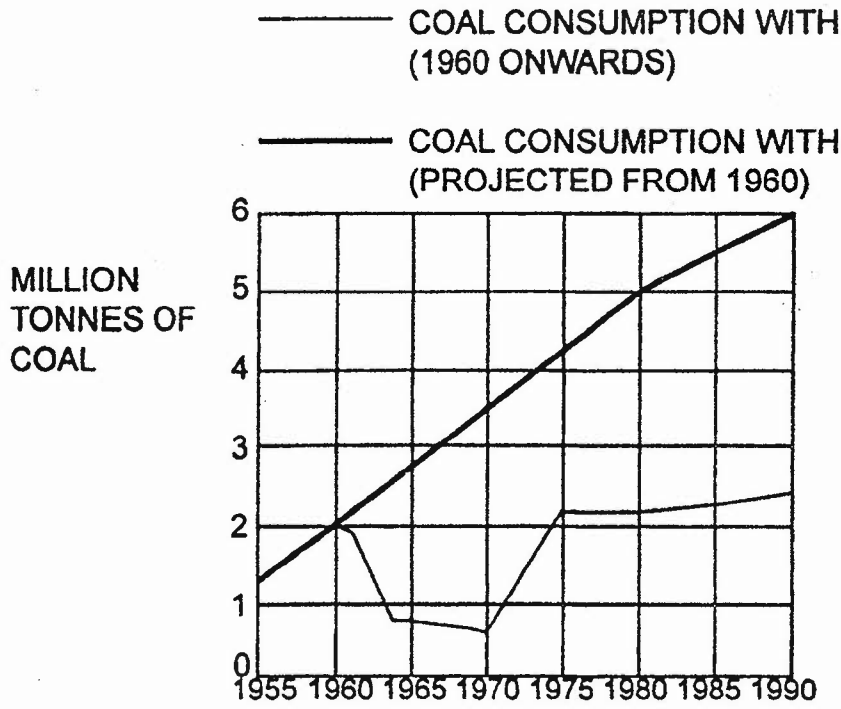


Fig. 5

(i) Describe and explain the trends in the consumption of coal shown. **(6)**

(ii) State the benefits of coal to Zimbabwe. **(5)**

(ii) Put forward arguments against the mining of minerals. **(3)**

5. (a) Study Photographs B and C (Insert 1) which show different methods of land preparation for farming purposes.

(i) Describe the method of land preparation shown in each photograph. (6)

(ii) Explain the advantages and problems that will arise if the method shown in C was introduced in B. (8)

(b) (i) Define the term 'nomadic herding' and describe the characteristic features of nomads. (In your answer, refer to the traditional routes of movement followed, the animals kept and the way of life of the nomads). (8)

(ii) Why do you think nomadic herding is disappearing in Africa? (3)

ZIMBABWE SCHOOL EXAMINATIONS COUNCIL

General Certificate of Education Ordinary Level

GEOGRAPHY 2248/2

PAPER 2

INSERT 1

Monday **5 NOVEMBER 2001** Morning 2 hours 30 minutes

TIME 2 hours 30 minutes

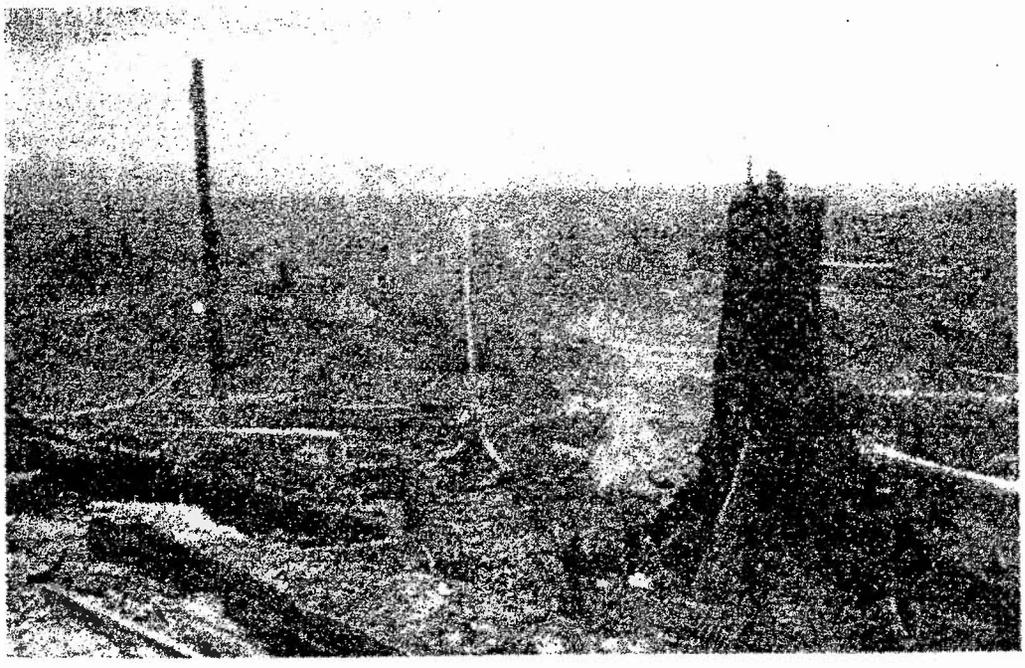
INSTRUCTIONS TO CANDIDATES

This insert contains Photograph A for use with Question 4(a) and Photographs B and C for use with Question 5(a).

This insert consists of 3 printed pages and 1 blank page.

[Turn over

Photograph A for Question 4(a)



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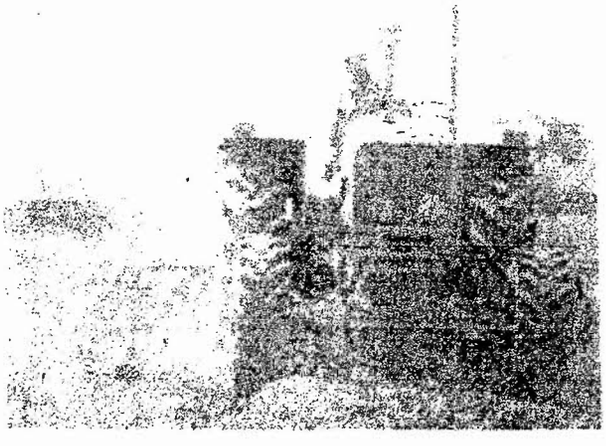
Photographs B and C for Question 5(a)

B



C

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6. **(a)** Fig. 6 shows the distribution of oil refineries in Africa.

Fig. 6

(i) Describe the distribution of the oil refineries shown. (4)

(ii) The location of oil refineries has been influenced by the market, break-of-bulk and raw materials. Give one example of each location and explain your answer. (6)

(iii) State two other industries associated with oil refining. (2)

(b) (i) State the inputs and outputs of iron ore smelting in a blast furnace. (4)

(ii) With reference to a named manufacturing industry you have studied, explain why you would recommend its continued existence to government. (9)

Section C (Population, Settlement, Transport and Trade)

Answer at least **one** question from this section.

7. (a) Table I shows the age structure of population for three regions of the world.

TABLE 1

Region	Age Structure - % of total population		
	Under 15	16 – 64	Over 65
Southern Africa	42	54	4
North America	25	64	11
East Asia	34	60	6

(i) Draw a pie chart, **to scale**, to show the age structure of Southern Africa. **(3)**

(ii) Calculate the dependency ratio for East Asia. **(1)**

(iii) Compare the population characteristics for the three regions. **(3)**

(b) Suggest solutions to the problems of rapid population growth in Southern Africa. **(7)**

(c) Fig. 7 shows migration patterns in Africa.

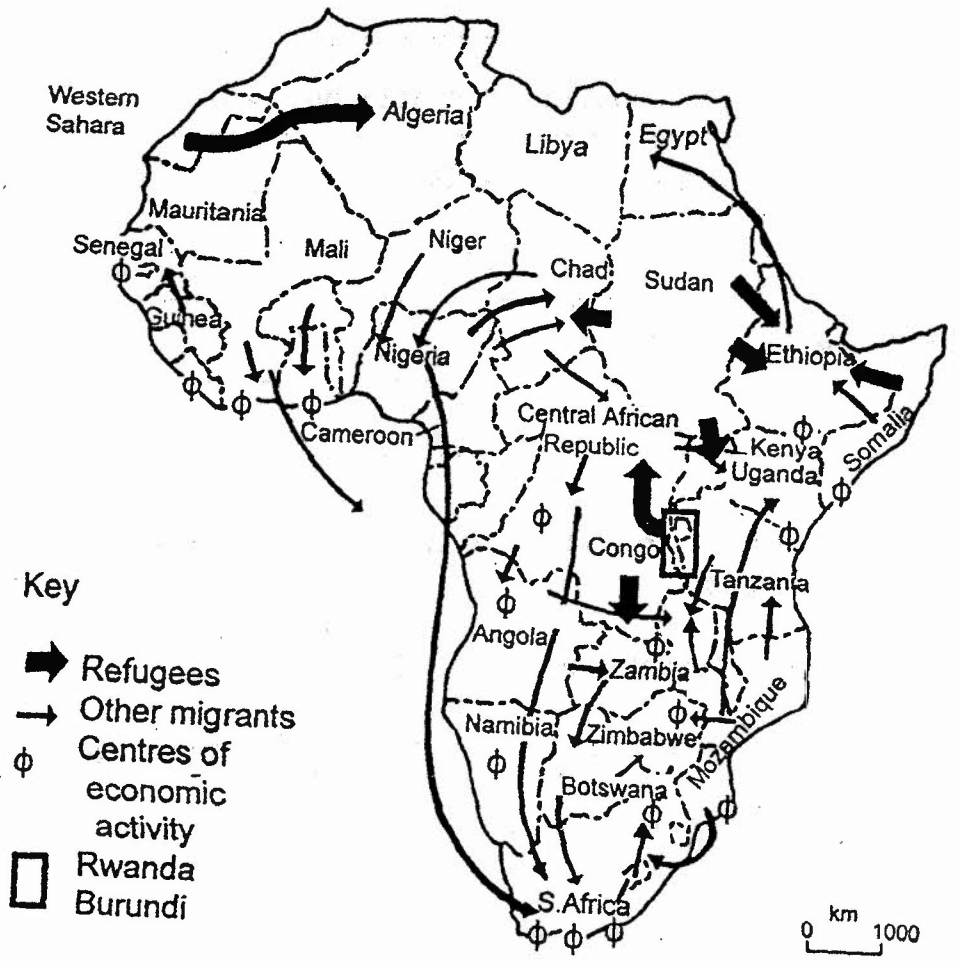

Fig. 7

(i) Explain the term 'population migration'. (2)

(ii) Describe the patterns of migration shown in Fig. 7. (4)

(iii) Explain how economic factors influence migrations. (5)

8. **(a)** In Zimbabwe, people look down upon the rural ways of communal life.

(i) In your view, what are the reasons for this? **(6)**

(ii) Describe the advantages of rural life compared to that in urban areas. **(3)**

(b) Fig. 8 shows the growth of cities with more than 1 million people.

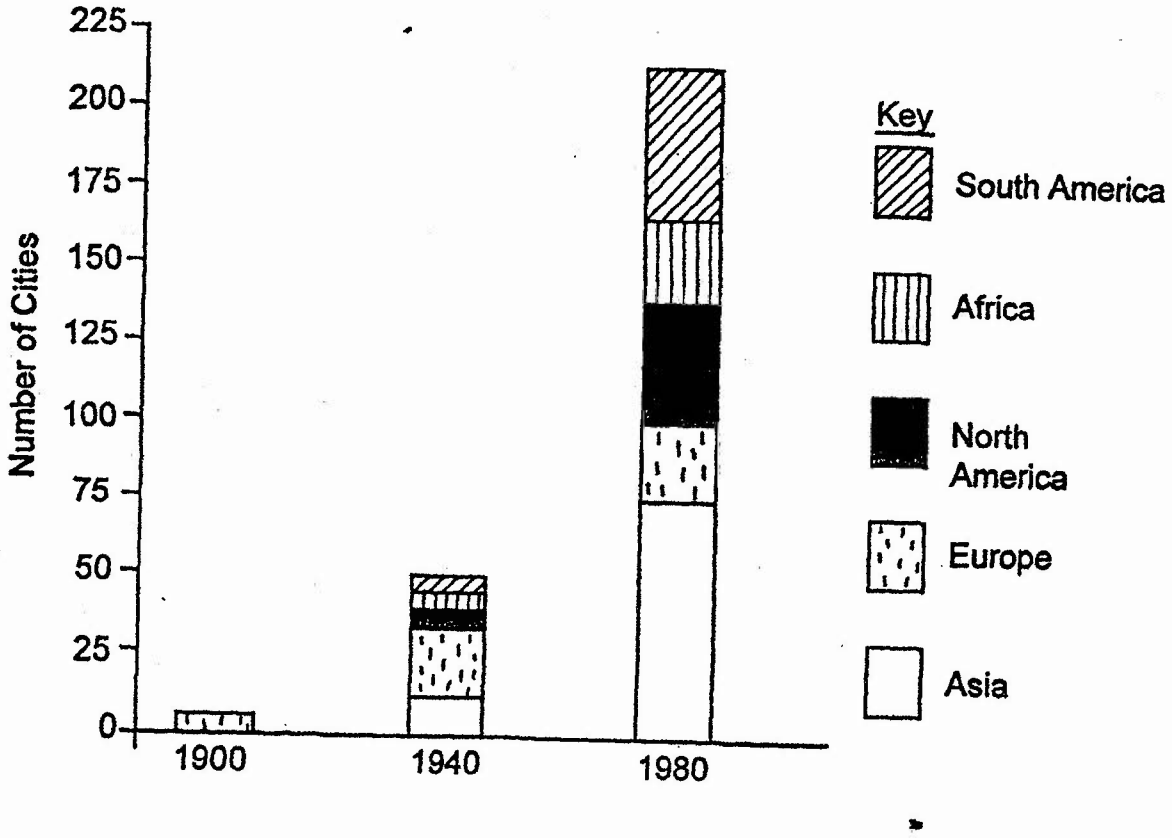

Fig. 8

(i) Describe the changes in urban growth shown in Fig. 8. **(6)**

(ii) For Africa and Asia, what problems have arisen as a result of rapid urban growth? **(4)**

(c) With reference to a named urban settlement you have studied, draw a fully labelled map to show its major landuse zones. **(6)**

9. **(a)** Fig. 9. shows regional and overseas direct flights for some S.A.D.C. airlines.

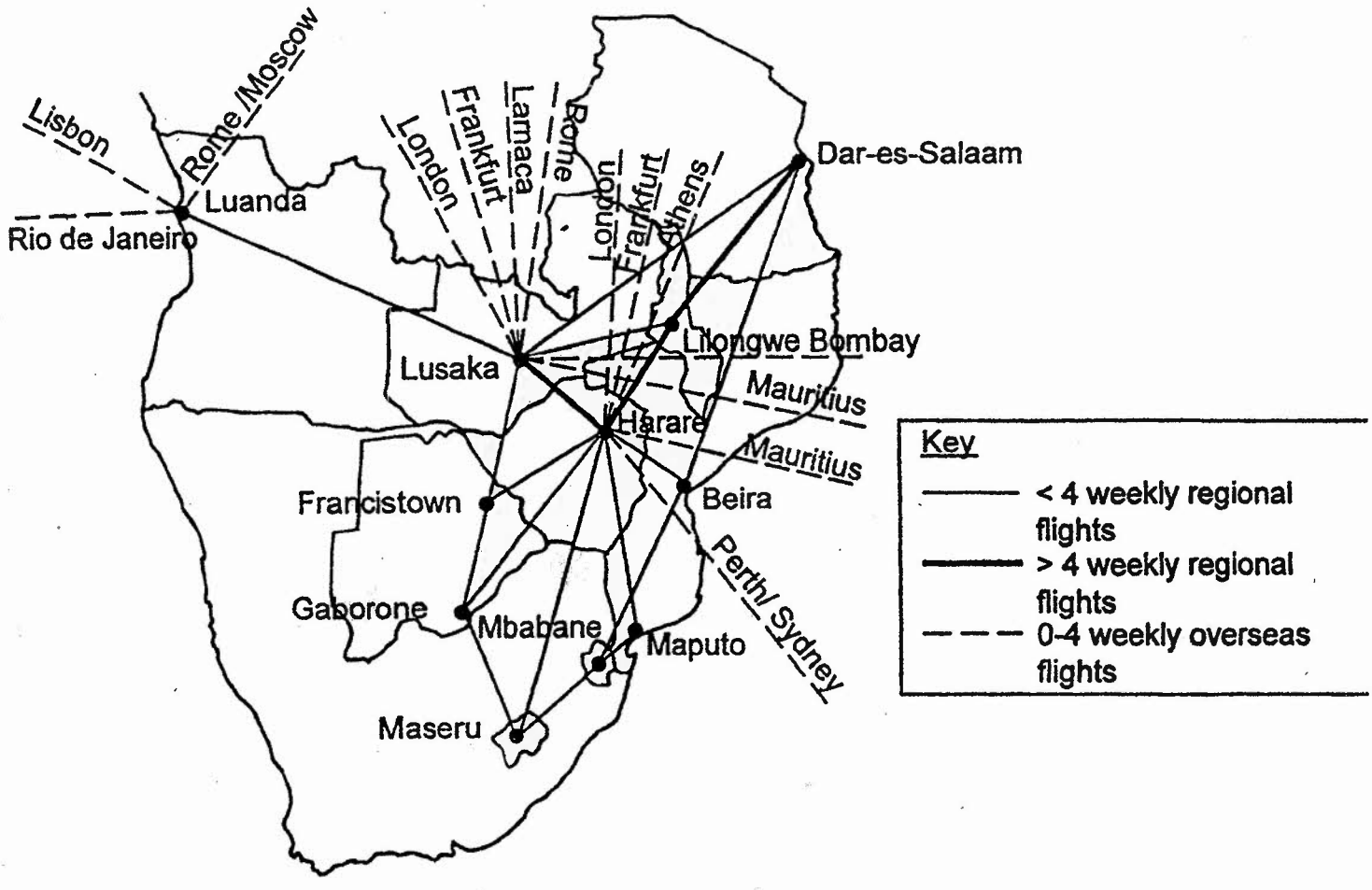

Fig. 9

(i) Describe and explain the regional and overseas direct flights shown in Fig. 9. **(6)**

(ii) Outline the new developments that are taking place in modern passenger air travel. **(4)**

(iii) There are plans to construct **either** an airport **or** a new road in an area. State and explain the factors which influence the siting of **one** of the two. **(6)**

(b) Fig. 10 shows a pattern of trade for some countries of the world.

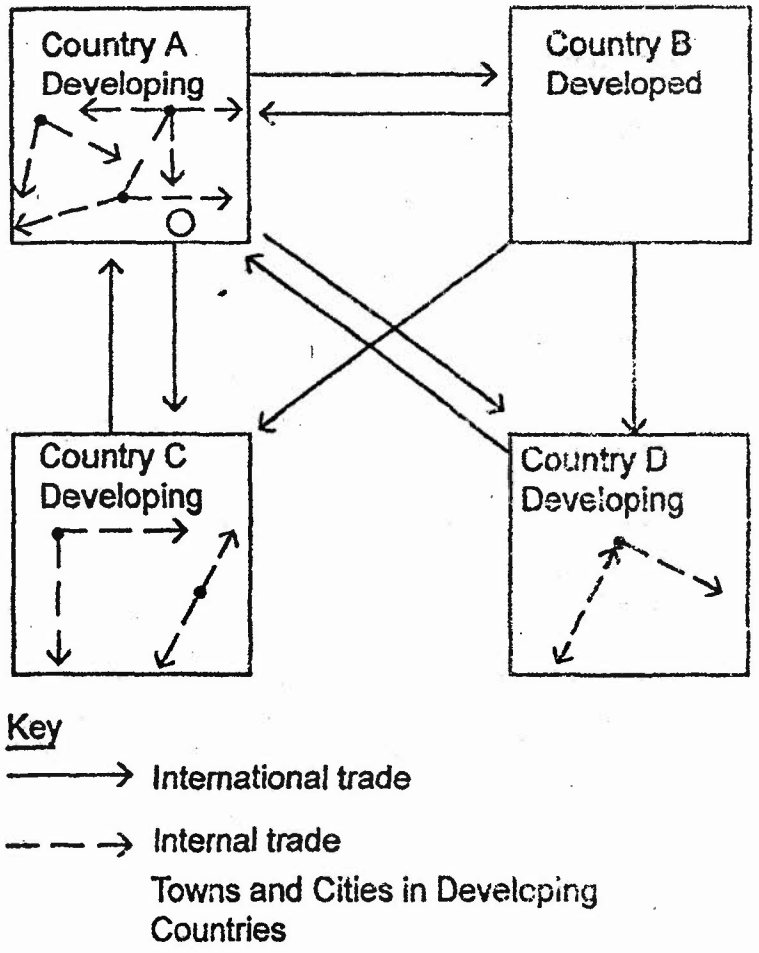

Fig. 10

(i) Name the internal trade marked O in Country A. Give one reason for this type of trade in the country. (2)

(ii) Explain the advantages of Country A over Countries C and D from the trade links shown in Fig. 10. (4)

(iii) State the major exports of developed countries. (3)

GEOGRAPHY **NOVEMBER 2001**

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POSSIBLE ANSWERS

1. (a) (i) A - mantle/mesosphere
B - sima/oceanic crust
C - sial/continental crust (3)

(ii) iron, nickel. (2)

(iii)

Description	Explanations
- collision of plates	- convection currents
- divergence of plates	- convergence
	- compressional forces
	- tensional forces
- subduction of oceanic plates	- denser
- oceanic ridges/ rift valley	- divergence
- folding	- convergence/uplift/compression
- trenches	- subduction
- volcanic eruptions	- faulting/folding
- earthquakes	- faulting//plate movement
- evidence of continents	- divergence/convergence/plate movement

(8) {13}

b. (i)

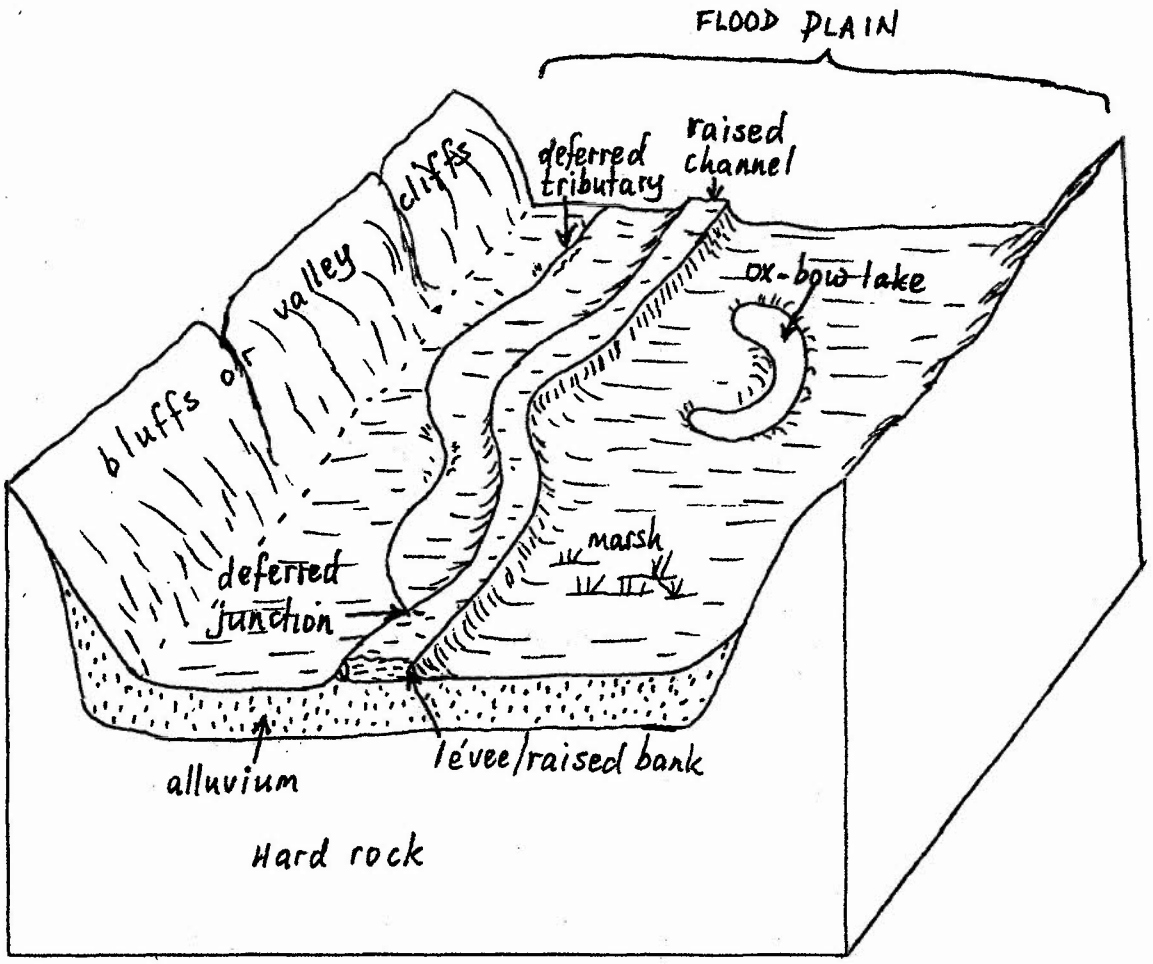


Diagram may also include
- meanders
- braiding
- terraces

(4)

b (ii) Upper Course

Benefits	Problems
- H.E.P.	- difficult navigation
- water supplies	- difficult to set up settlement
- tourist attraction	- erosion
- water sport	- mass movement/rockfalls
- easy to build dam walls, bridges	
- fishing	

Lower Course

Benefits	Problems
- alluvial plain	- water borne diseases/bilharzia/typhoid
- fertile soils	- malaria
- more water	- marshes
- fishing	- flooding
- easier transport	- river blindness
- easy to build routes	- less water downstream
- pastures	

(8)
{12}
[25]

2. (a) (i)

Massinga	Walvis Bay
- warmer (higher temperatures)	- low temperature
- small temperature range	- large temperature range
- near to warm ocean current	- near cold ocean current
- on-shore S.E. winds bring warm temperatures	- on shore winds very cold

(4)

(ii)

Names	Reasons
- tropical maritime(mT)	- formed within the tropics - over water
- polar maritime (mP)	- formed outside tropics - over water

(4)

(iii) Temperature - high/warm/hot (24- 30°C)

Humidity – high/moist/ humid (2)

{10}

(b) (i) X – partly cloud

Y – drizzle

Z - hurricane, gale force winds/50 knots (3)

(ii)

Dam/lake (3)	Urban settlements (3)
- evaporation increases humidity	- pollution/acid rain/smog
- increased cloud cover	- urban heat islands/global warming
- reduced temperature range	- wind corridors/increased wind speed
- higher rainfall	- more rainfall
- land/lake breeze	- low pressure
- more frequent fog/mist	- reduced sunshine/increased cloudiness
	(6) {9}

(c)

High Rainfall Area (3)	Low Rainfall Area (3)
- grow water loving crops, e.g rice	- keep/grow drought resistant/tolerant animals/crops
- control floods/dam construction/afforestation/ dykes	- practice irrigation
- soil conservation/contour ridges/terracing	- conserve water/ damming/ boreholes/reservoirs
- draining waterlogged areas	- winter ploughing
- apply fertilizer to reduce infertility due to leaching	- grow short season varieties
- disease/pest control	- cloud seeding
- weed control	- zero tillage
- rotational penning of livestock	- game and cattle ranching
- practice zero tillage	- mulching
- cloud seeding	

{6}
[25]

3. (a) (i)
1. regeneration of plants, destruction of micro organisms, destruction of humus, reduction in biodiversity
2. deforestation, forest protection
3. cultivation/manuring/irrigation/ploughing, erosion, compacting, fertilizer use/conservation (3)

(ii)
- legislation, patrols
- education
- fireguards
- firefighters
- early warning system
- look-out towers/observation towers (3) {6}

(b) (i)
Montane forest - in the east, Nyanga, Vumba areas
Woodlands - Bikita/Zaka/Shurugwi, Harare, Victoria Falls.
Scrub + Mopane - South and North West and North and West of Zimbabwe.
Parkland Savanna - much of the country, east and Central Zimbabwe. (4)

(ii)
Montane Forest - forestry and recreation.
Woodland Savanna - hunting and recreation.
Parkland Savanna - growing crops.
Scrub/Mopane Savanna - ranching and wildlife. (4)

(iii) Land use problems for the specific ecosystems include:

Scrub and Mopane Savanna
- overgrazing/erosion
- environmental degradation
- poaching
- animal related diseases/ foot and mouth/tick borne diseases.

Woodlands Savanna
- erosion
- siltation
- pests and diseases
- poaching
- animal extinction
- pollution
- environmental degradation
- migration of game

Parkland Savanna
- erosion
- siltation
- environmental degradation
- pollution
- loss of nutrients
- desertification

Montane Forest
- erosion
- deforestation
- land pollution
- poaching of timber
- forest fires
- reduced biodiversity (4) {12}

(c) Positive
- water into soils, increased cover by crops
- soil gains nutrients from solution and crop residues
- relative humidity of air increases
- increased humus decay
- reduced wind erosion

Negative
- clearance of bush/deforestation
- salinisation of soils
- increased desertification
- impoverishment of soils/leaching
- fungal diseases (7) {7}
[25]

4. (a) (i) fire, chain saws, clear cutting/total patch clearance, axes, pollarding. (3)

(ii) buttress roots, thick vegetation, muddy, mixed/inaccessible forests, wet conditions, humid conditions diseases, pests, hot/enervating conditions, bulky, heavy, climbers, wild animals, snakes. (4)

(iii)
- afforestation
- reforestation
- substituting wood with other products
- selective cutting
- strict legislation
- ban use of fire
- education
- licensing/quota system
- forest reserves (4) {11}

Parkland Savanna	- erosion - siltation - environmental degradation - pollution - loss of nutrients - desertification
Montane Forest	- erosion - deforestation - land pollution - poaching of timber - forest fires - reduced biodiversity (4) {12}

(c) Positive
- water into soils, increased cover by crops
- soil gains nutrients from solution and crop residues
- relative humidity of air increases
- increased humus decay
- reduced wind erosion

Negative
- clearance of bush/deforestation
- salinisation of soils
- increased desertification
- impoverishment of soils/leaching
- fungal diseases (7) {7}

[25]

4. (a) (i) fire, chain saws, clear cutting/total patch clearance, axes, pollarding. (3)

(ii) buttress roots, thick vegetation, muddy, mixed/inaccessible forests, wet conditions, humid conditions diseases, pests, hot/enervating conditions, bulky, heavy, climbers, wild animals, snakes. (4)

(iii)
- afforestation
- reforestation
- substituting wood with other products
- selective cutting
- strict legislation
- ban use of fire
- education
- licensing/quota system
- forest reserves (4) {11}

(b) (i) Coal consumption without Kariba

1955 - 1980: rose rapidly - major source
1980 - 1900: rose steadily - use of alternatives
1955 - 1990: generally high - increased demand, availability

Coal consumption with Kariba

1960 - 1963: sharp decline - introduction of hydro electric power
1963 - 1970: slight decline - increased demand, availability
1970 - 1975: sharp increase - industrial growth
1975 - 1980: steady - little demand from industry
1980 - 1990: slight increase - industrial growth/ economic growth after the war
1960 onwards: low generally - use of alternative sources (6)

(ii)
- employment creation
- source of energy
- industrial use - raw material
- construction of roads
- drugs, insecticides, nylon
- expansion of Hwange Town
- market to other industries
- foreign currency earner (5)

(iii)
- pollution - air, noise, land, water
- open pits, curve-ins, disasters
- spoil heaps
- fluctuation of prices
- deforestation
- soil erosion
- siltation
- resettle people (3) {14}

[25]

5. (a) (i) Photograph B

- two cattle spanned
- use of ripper plough
- traditional/draught power

Photograph C

- modern tractor used
- many discs on plough/disc plough
- modern/mechanised (6)

(ii) Advantages of method shown in Photograph C

- limits rate of erosion
- fast
- efficient
- saves on human labour
- deep tilth
- moisture conservation

Problems of method shown in Photograph C

- high costs of inputs
- lack of fuel, spares, forex
- reduces employment
- lack of knowledge
- lack of capital (8) {14}

(b) (i) Definition: movement of farmers with their livestock in search of water and pasture.

Animals: cattle, goats, camels, mules, sheep.

Way of life: simple, intertwined with livestock, e.g. food, clothing, settlements, other belongings, traveling light quickly pitch up/break settlement.

Routes latitudinal changes/seasonal changes, upland versus lowland direction, e.g. North-South and vice versa for Fulani. (8)

(ii) Reasons for the disappearance of nomadic herding

- increased population
- improved education
- movements into town/urbanization
- governments control movements

- tourism/large areas reserved for tourism
- sedentarisation of nomads, resettlement
- political boundaries
- fencing
- legislation (3) {11}

[25]

6. (a) (i) Description

- refineries are coastal
- some few are inland
- more refineries in West and North Africa
- few Central and East Africa
- South Africa has many refineries (4)

(ii)

Location and examples	Explanation
Raw material, e.g Harcourt, Luanda, Brega	- near oilfields which are coastal or offshore
Break of bulk, e.g Mombasa, Dar-Es-Salaam, Durban	- break of bulk locations for imported crude.
Market, e.g. Ndola, Mutare Addis Ababa, Johannesburg	- market oriented where consumers are many. - wealthier and a large market so imports more crude. (6)

(iii) plastic, nylon, paints, car assembly, drugs, detergents, insecticides, jellies (2) (12)

(b) (i) Inputs

- limestone
- coking coal/coke
- iron ore
- hot air
- oxygen
- scrap iron

Outputs

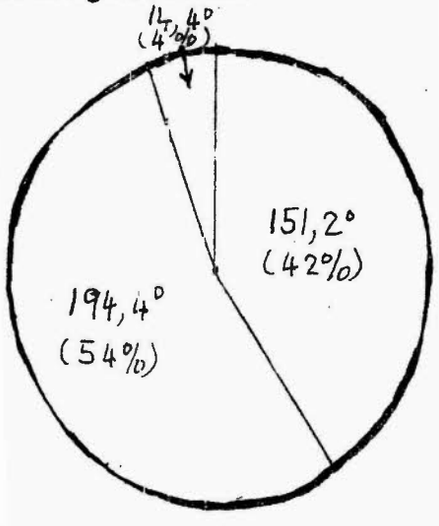
- hot gases
- slag (waste, fertilizer, road metal)
- pig iron (4)

(iv) Iron and Steel industry/named company, e.g. ZISCO

- creation of employment
- development of infrastructure, e.g. roads, railways
- self sufficiency
- source of forex
- source of raw materials for other industries
- development of social services, e.g. schools, hospitals
- market for other industries/multiplier effects
- development of settlements

(9) {13}
[25]

7. (a) (i) Pie Chart of age structure



(3)

(ii) 34 + 6 = 40%/ 2:3 (66.6%) (1)

(iii) largest dependency ratio in Southern Africa 46% followed by East Asia 40% and lastly North America. North America higher over 65. North America highest economic active group, followed by East Asia, Southern Africa smallest. Under 15 Southern Africa has the largest followed by East Asia and lastly North America. (3) {7}

(b) Solutions to rapid population growth taken also as solutions to problems thereof:

- family planning/birth control measures - contraceptive use, male sterilization, late marriages,
- education/sex education/HIV-AIDS education/advertising
- to focus on the girl child/empowerment of women/ keeping girls longer at school, population policy
- enhancing the status of women, incentives, e.g. Government tax incentives.
- legalise abortion. (7)

(c) (i) Population migration - movement of people from one place to another over a considerable period of time. (2)

(ii) Refer to the map (figure 7) for the movements

- Large numbers of refugees from Western Sahara to Algeria.
- Sudan to Algeria.
- Sudan to Chad, Ethiopia, Uganda.
- Congo to Zambia
- Somalia to Ethiopia

Other migrants to centres of economic activity.

- Nigeria to South Africa
- Botswana to South Africa, etc. (4)

(iii) <u>Push/Pull economic factors</u> - better employment opportunities, for sale of goods/trade, job promotion, regional differences, resettlement, high/low standard of living, high cost of living, economic decline/ prosperity. (5) {11} [25]

8. (a) (i) Reasons people look down on of rural communal life:

- life mainly centres on agriculture, which is taxing.
- lack of clean water supplies
- poor sanitation
- schools and clinics too far
- unavailability of goods
- poor infrastructure, roads, power supplies
- lack of entertainment

- poor housing
- general poverty/low standard of living
- poor diet
- low level of education/literacy (6)

(ii) Advantages of rural life over urban life:

growing of own food, little use of money, fuel free, cleaner environment compared with urban ones, cheap/free accommodation, more nutritious/natural foods, cheap services, less crime, aesthetic beauty. (3)

(b) (i) 1900 - only Europe had cities with 1 million people 5 - 10 cities.

1940 - general increase in numbers, Europe and Asia dominate, North America, Africa and South America small numbers.

1980 - very rapid rise everywhere but more notable in Asia, North America, Africa and South America.

The table summaries the changes described above:

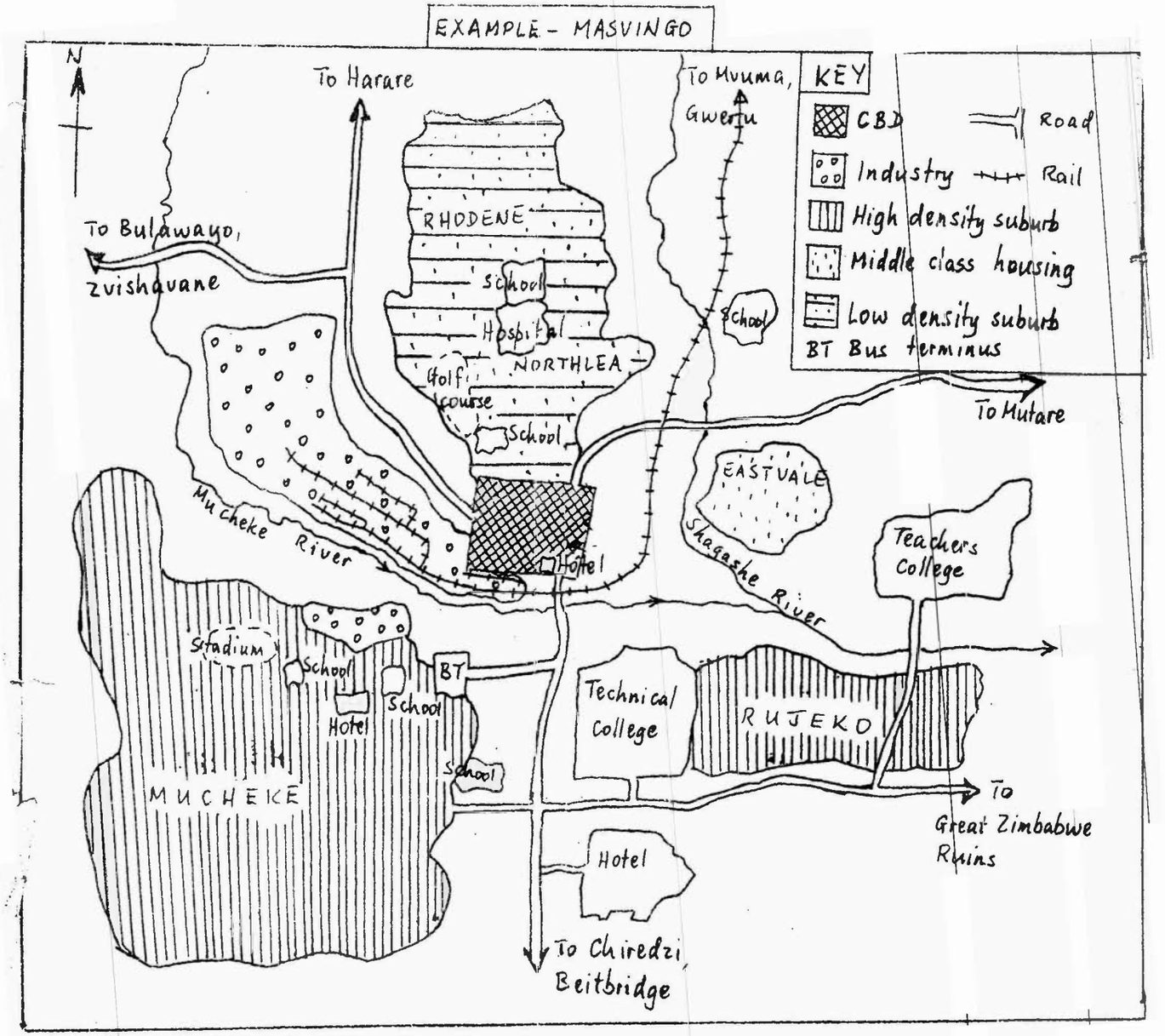
Year	Asia	South America	Europe	North America	Africa
1900	0	0	5	0	0
1940	15	5	25	5	5
1980	75	50	25	50	30

(ii) Problems

- shortage of housing
- squatter settlements
- stress on transport
- over-crowdedness of buses, cars, etc
- longer waiting time
- sewage disposal problems, shortage of jobs, schools, clinics
- crime rate increases
- prostitution

(6) {10}

(c) Urban settlement; land use zones



Other examples commonly used include Gweru, Marondera, Chegutu, Bulawayo, Harare, Mutare, Gutu-Mupandawana. (6) {6}

[25]