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Example Candidate Responses

Cambridge IGCSE®

Geography **0460**

Paper 2: Geographical Skills

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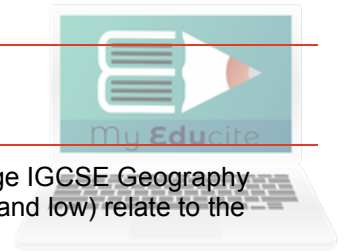
Introduction

The main aim of this booklet is to exemplify standards for those teaching Cambridge IGCSE Geography (0460), and to show how different levels of candidates' performance (high, middle and low) relate to the subject's curriculum and assessment objectives.

In this booklet candidate responses have been chosen to exemplify a range of answers for Paper 2: Geographical Skills. Each response is accompanied by a brief commentary explaining the strengths and weaknesses of the answers.

For ease of reference the following format for each component has been adopted:

Mark scheme

↓

Example candidate response

↓
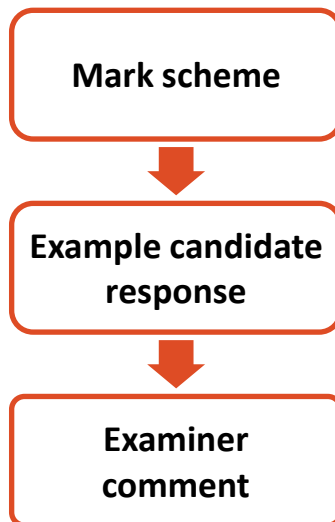
Examiner comment

Each question is followed by an extract of the mark scheme used by examiners. This, in turn, is followed by examples of marked candidate responses, each with an examiner comment on performance. Comments are given to indicate where and why marks were awarded, and how additional marks could have been obtained. In this way, it is possible to understand what candidates have done to gain their marks and what they still have to do to improve their marks.

This document illustrates the standard of candidate work for those parts of the assessment which help teachers assess what is required to achieve marks beyond what should be clear from the mark scheme. Some question types where the answer is clear from the mark scheme, such as short answers and multiple choice, have therefore been omitted.

Past papers, Examiner Reports and other teacher support materials are available on Teacher Support at **https://teachers.cie.org.uk**
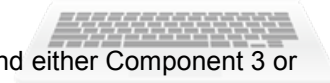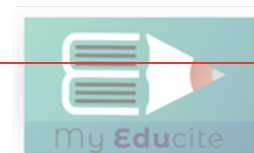
Assessment at a glance

All candidates take three components. All candidates take Paper 1 and Paper 2, and either Component 3 or Paper 4.

All candidates take:		and:	
Paper 1	1 hour 45 minutes	**Paper 2**	1 hour 30 minutes
Geographical Themes	45%	Geographical Skills	27.5%
75 marks, weighted to 100 marks		60 marks	
Candidates answer three questions, each worth 25 marks. Candidates must answer one question from each section.		Candidates answer all the questions	
Externally assessed		Externally assessed	
All candidates take either:		**or:**	
Component 3		**Paper 4**	1 hour 30 minutes
Coursework	27.5%	Alternative to Coursework	27.5%
60 marks		60 marks	
Teachers set one Centre-based assignment of up to 200 words		Candidates answer two compulsory questions, completing a series of written tasks	
Centre-based assessment*		Externally assessed	

*Centre-based assessments require the written approval of Cambridge. This will only be given to teachers who satisfy Cambridge requirements concerning moderation. Cambridge offers schools in-service training courses which are held in Cambridge and elsewhere.
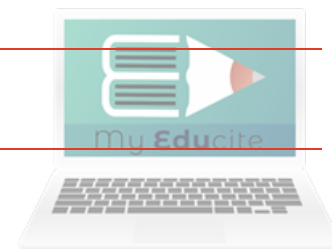
Paper 2: Geographical Skills

Question 1

Mark scheme

1 (a) (i) wide tarred,   [1]

   (ii) dense bush/very dense bush/dam,   [1]

   (iii) dip tank,   [1]

   (iv) track/cut line/game trail,   [1]

   (v) (seasonal) marsh,   [1]
        Mark the first type of land use given.

   (b) (i) gently sloping, (more than one tick = 0)   [1]

   (ii) dam/furrows/reservoirs/rivers/streams/watercourse, (high drainage density = 0) [1]

   (iii) power line/33kV, (power supply = 0)   [1]

   (iv) staff quarters/huts/buildings/Welbeck Township/Mazoe Township, (houses, village = 0)
                                                                                       [1]

   (v) tarred road(s), (large road = 0)   [1]

   (c) (i) 794 673,   [1]

   (ii) SE,   [1]

   (iii) 213°, (more than one tick = 0)   [1]

(d)

		Type of land		
		Steep slopes	Gentle slopes	Next to rivers
Land use	Cultivation		✓	
	Seasonal marsh			✓
	Dense bush	✓		

More than one tick per row = 0   [3]

(e) flows NE/NNE/N,
     stream(s)/small river(s)/small watercourse(s), (smaller rivers = 0)
     tributary/confluence/tributaries/confluences/affluents, (splits into tributaries = 0)
     meanders/bends etc.,
     dendritic pattern,
     dam(s), (reservoir, lake = 0)
     tributaries join at acute angles,
     high drainage density/many streams/many rivers/many tributaries, (many tributaries = 2)
     gentle gradient/flows on gentle land (must be referring to rivers),
     wider downstream/wider in NE/NNE/N,   [4]

Example candidate response – high

1 Study the map extract which is for Great Riversdale Estates, Zimbabwe. The scale is 1:50 000.

   (a) Fig. 1 shows some of the features in the north east part of the map extract. Study Fig. 1 and the map extract, and answer the questions below.
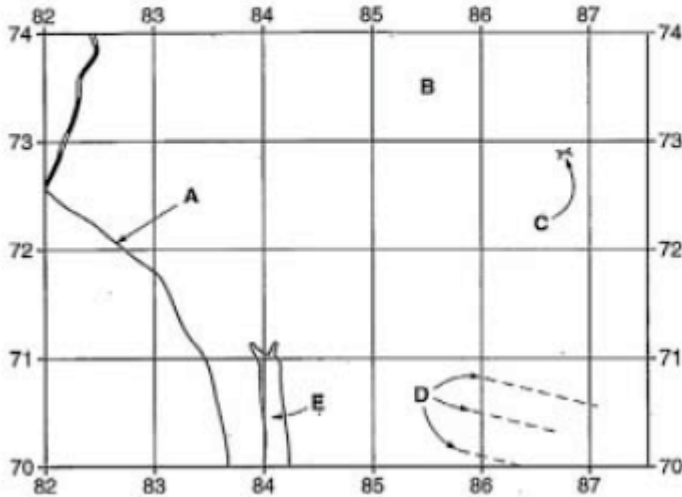

Fig. 1

Using the map extract, identify the following features shown on Fig. 1:

   (i)   the type of road at A;

         Road (Wide tarred) .... [1]

   (ii) the land use in area B;

         ~~Dam, watercourse~~ Very dense bush .... [1]

   (iii) feature C;

         Dip tank .... [1]

   (iv) features D;

         Track, Cut line or game trail .... [1]

   (v)   the type of land in area E.

         Seasonal Marsh .... [1]

Example candidate response – high, continued

(b) Study the area of orchard or plantation, shown by rows of small green squares, in the south east corner of the map extract.

(i) Which **one** of the following statements describes the relief of this area? Tick (✓) **one** correct answer in Table 1 below.

Table 1

Statement	Tick (✓)
steeply sloping	
a ridge	✓
gently sloping	~~✓~~
a spur	

[1]

(ii) What is the map evidence of water supplies for the orchard or plantation?

There is a large Dam that is connected To a long reed Seasonal marsh Close to the orchard. [1]

(iii) What is the map evidence of power supplies to the orchard or plantation?

A power line of 33kV cutting right through the Orchard or plantation. [1]

(iv) What map evidence shows that housing is available for workers?

A group of huts close To the lemon pool all grouped together. [1]

(v) How can the crops be transported away from the orchard or plantation? State the map evidence.

Two Roads (wide tarred) pass through the orchard / plantation [1]

Example candidate response – high, continued

(c) Find the point where the narrow tarred road crosses the railway in Jumbo Reserve.

   (i) State the six figure grid reference of this point.

   ......794 673.. [1]

   (ii) State the direction from the point in (c)(i) to Foyle Estate (8165).

   ......South East.. [1]

   (iii) Measure the compass bearing from the point in (c)(i) to where the railway meets the southern edge of the map. Tick **one** correct answer in Table 2 below.

Table 2

Answer	Tick (✓)
33°	
205°	
213°	✓
220°	

[1]

(d) The following table gives information about land use in the area of the map extract. Complete Table 3 below by adding **one** tick for each row.

Table 3

		Type of land		
		steep slopes	gentle slopes	next to rivers
Land use	cultivation			✓
	seasonal marsh		✓	
	dense bush	✓		

[3]

Example candidate response – high, continued

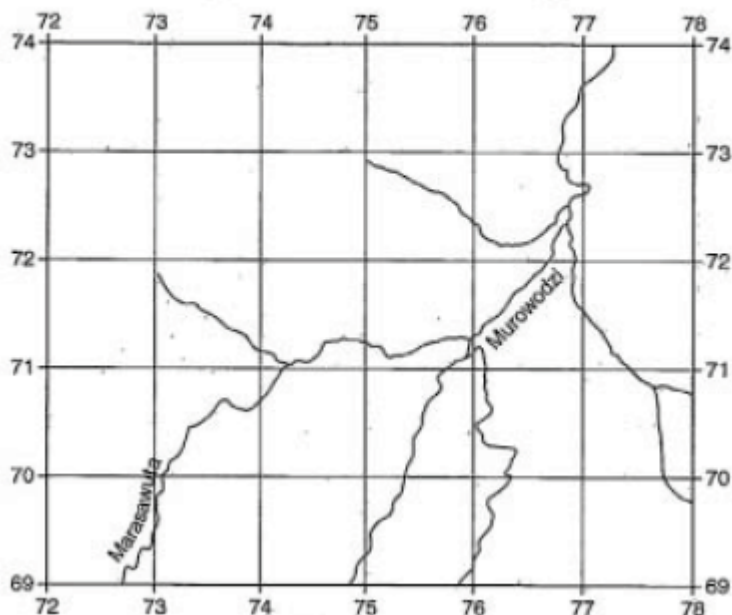(e) Fig. 2 shows an area in the north west of the map extract.

Fig. 2

Describe the drainage of this area.

There are a few rivers running through the area. The murowodzi and the marasawuta. All the tributaries from these rivers all form to meet at one that continues to the north. These rivers pass through or close to all the major green land area, and also through Rothbury farm. Any drainage from these places would flow downstream to join and flow into one source. That would [4] then clean out the drainage.

[Total: 20 marks]

Examiner comment – high

In parts (a) and (b), the candidate demonstrates a high level of proficiency in identifying features on the map and using the key to identify them. The only incorrect answer is in part (b)(i) where the candidate refers to a ridge rather than gentle slopes. In part (c), the grid reference, compass direction and bearing are all correct. In part (d), the candidate scores one mark out of three, not recognising that the gentle slopes are cultivated and that the seasonal marsh is next to rivers. In part (e), the candidate scores two marks out of the four available for describing the drainage. These are for identifying tributaries and the flow towards the north. There is a slight possibility that the candidate may think that the tributaries leave the rivers rather than join them but the candidate has been given the benefit of the doubt and the mark has been awarded.

Mark awarded = 15 out of 20

Example candidate response – middle

1   Study the map extract which is for Great Riversdale Estates, Zimbabwe. The scale is 1:50 000.

(a)   Fig. 1 shows some of the features in the north east part of the map extract. Study Fig. 1 and the map extract, and answer the questions below.
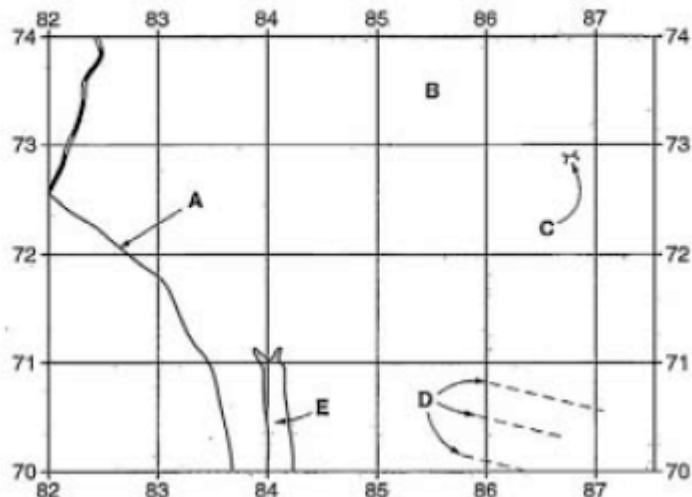

Fig. 1

Using the map extract, identify the following features shown on Fig. 1:

(i)   the type of road at A;

        Road , Wide Tarred   [1]

(ii)   the land use in area B;

        Very Dense Bush , Dense Bush   [1]

(iii) feature C;

        Dip Tank   [1]

(iv)   features D;

        Track , Cut Line or Game Trail   [1]

(v)   the type of land in area E.

        Seasonal Marsh   [1]

Example candidate response – middle, continued

(b) Study the area of orchard or plantation, shown by rows of small green squares, in the south east corner of the map extract.

(i) Which **one** of the following statements describes the relief of this area? Tick (✓) **one** correct answer in Table 1 below.

Table 1

Statement	Tick (✓)
steeply sloping	
a ridge	
gently sloping	✓
a spur	

[1]

(ii) What is the map evidence of water supplies for the orchard or plantation?

There is a Dam on the orchard or plantation area.

[1]

(iii) What is the map evidence of power supplies to the orchard or plantation?

A powerline, 33 KV is also in that area.

[1]

(iv) What map evidence shows that housing is available for workers?

There are huts and built-up areas.

[1]

(v) How can the crops be transported away from the orchard or plantation? State the map evidence.

There are Road, wide Tarred and gravels through which they can be transported.

[1]

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Example candidate response – middle, continued

(c) Find the point where the narrow tarred road crosses the railway in Jumbo Reserve.

  (i) State the six figure grid reference of this point.

   grassland comm 816779 .... [1]

  (ii) State the direction from the point in (c)(i) to Foyle Estate (8165).

   N/B any 5 cm .... [1]

  (iii) Measure the compass bearing from the point in (c)(i) to where the railway meets the southern edge of the map. Tick **one** correct answer in Table 2 below.

Table 2

Answer	Tick (✓)
33°	̶H̶H̶R̶
205°	
213°	✓
220°	

[1]

(d) The following table gives information about land use in the area of the map extract. Complete Table 3 below by adding **one** tick for each row.

Table 3

		Type of land		
		steep slopes	gentle slopes	next to rivers
Land use	cultivation	✓		
	seasonal marsh			✓
	dense bush		✓	

[3]

Example candidate response – middle, continued

(e) Fig. 2 shows an area in the north west of the map extract.
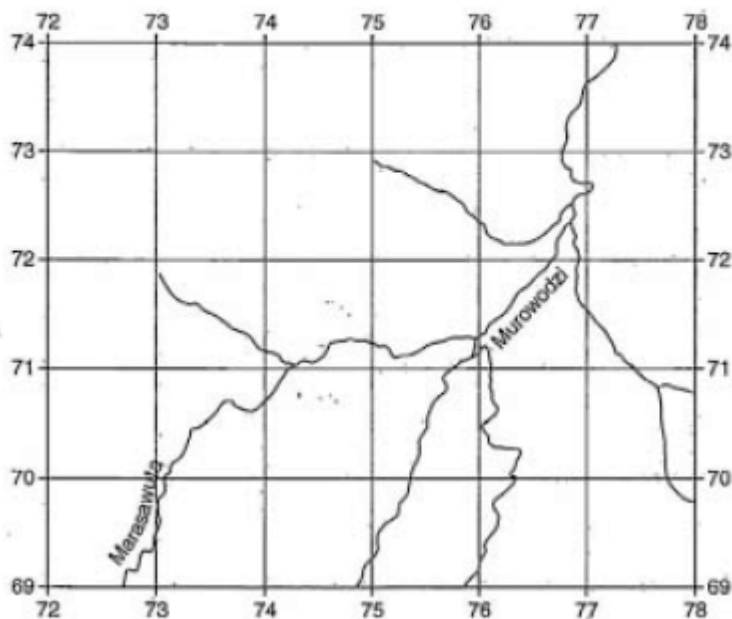
Fig. 2

Describe the drainage of this area.

The drainage of this area is not good because nearby the area there is cultivation all over, and it is surrounding. Also there are bushes like medium, dense and very dense bushes shop which are also near by the cultivation area, so drainage of that area is not good.

[4]

[Total: 20 marks]

Examiner comment – middle

Like the high level candidate, this candidate is good at finding features and identifying them and scores full marks on parts (a) and (b). However, fewer marks are scored on the more demanding later sections. In part (c), the bearing is correct but the grid reference and compass direction are not. In part (d), the seasonal marsh is correctly identified as being next to rivers. The answer to part (e) is irrelevant as the candidate refers to cultivation and vegetation but not to drainage.

Mark awarded = 12 out of 20

Example candidate response – low

1   Study the map extract which is for Great Riversdale Estates, Zimbabwe. The scale is 1:50 000.

(a) Fig. 1 shows some of the features in the north east part of the map extract. Study Fig. 1 and the map extract, and answer the questions below.
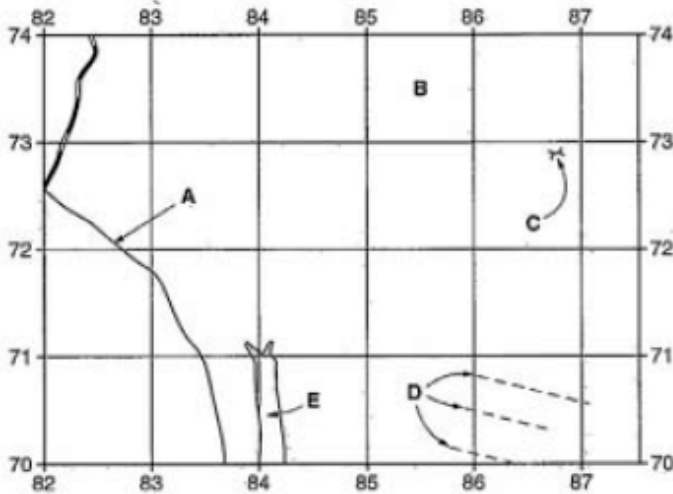

Fig. 1

Using the map extract, identify the following features shown on Fig. 1:

(i)   the type of road at A;

Baundary Cadastral subdivision.   [1]

(ii) the land use in area B;

Prospecting Trench   [1]

(iii) feature C;

Dip tank   [1]

(iv) features D;

Game trail   [1]

(v)   the type of land in area E.

Seasonal Marsh   [1]

Example candidate response – low, continued

(b) Study the area of orchard or plantation, shown by rows of small green squares, in the south east corner of the map extract.

(i) Which **one** of the following statements describes the relief of this area? Tick (✓) **one** correct answer in Table 1 below.

Table 1

Statement	Tick (✓)
steeply sloping	
a ridge	
gently sloping	✓
a spur	

[1]

(ii) What is the map evidence of water supplies for the orchard or plantation?

In the south west we can see pipe lines meaning water is being supplied in this area. [1]

(iii) What is the map evidence of power supplies to the orchard or plantation?

Right in the centre of this area a power line cuts through which show power existence [1]

(iv) What map evidence shows that housing is available for workers?

Next to Lemon fall, there are Staff head quaters. [1]

(v) How can the crops be transported away from the orchard or plantation? State the map evidence.

They could be moved to the west pt where no orchad is found. [1]

Example candidate response – low, continued

(c) Find the point where the narrow tarred road crosses the railway in Jumbo Reserve.

(i) State the six figure grid reference of this point.

797968 [1]

(ii) State the direction from the point in (c)(i) to Foyle Estate (8165).

South west [1]

(iii) Measure the compass bearing from the point in (c)(i) to where the railway meets the southern edge of the map. Tick **one** correct answer in Table 2 below.

Table 2

Answer	Tick (✓)
33°	
205°	
213°	✓
220°	

[1]

(d) The following table gives information about land use in the area of the map extract. Complete Table 3 below by adding **one** tick for each row.

Table 3

		Type of land		
		steep slopes	gentle slopes	next to rivers
Land use	cultivation		✓	
	seasonal marsh	✓		
	dense bush		✓	

[3]

Example candidate response – low, continued

(e) Fig. 2 shows an area in the north west of the map extract.
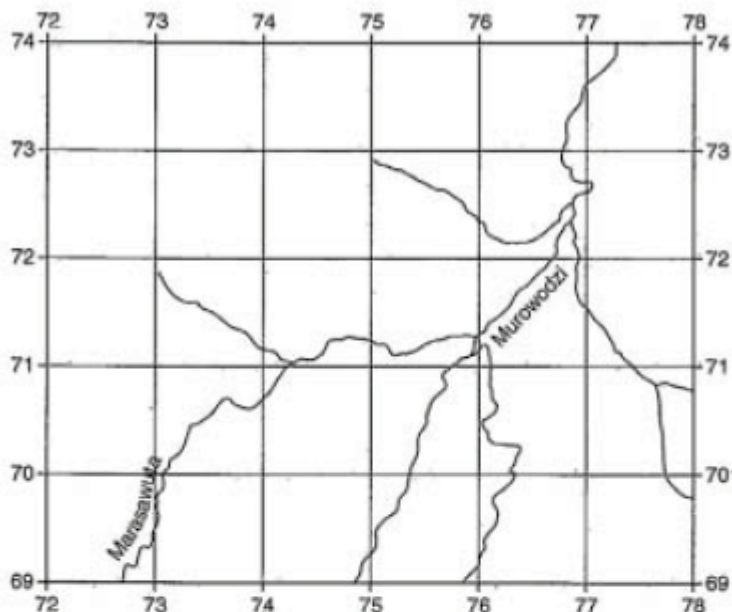
Fig. 2

Describe the drainage of this area.

This area is most cultivated and surrounded with pipe lines. Being surrounded with pipelines show that the area with pipe lines has access to enough water with helps the area to be watered and wet. Murowodzi is a very dense bush meaning different tree are around so all this area is very green and healthy. and the many tress attracted within church helpabof. [4]

[Total: 20 marks]

Examiner comment – low

The candidate does not always use the map key correctly and makes simple errors as in parts (a)(i) and (ii). In part (c), the correct compass bearing is given but not the compass direction and grid reference. The description of drainage in part (e) is almost completely irrelevant. The reference to pipelines is confused as there are none within the area shown on Fig. 2.

Mark awarded = 9 out of 20

Question 2

Mark scheme

2 (a) (i) farming,
forestry,
fishing,
mining,
quarrying,

extraction/production of raw materials = 0 [1]

(ii) any manufacturing or processing industry,
'factory' or 'manufacturing' or 'processing' alone = 0 [1]

(iii) any service or distributive industry including quaternary industries,
'services' alone = 0
retailing/selling/shops/office work = 1

Allow answers expressed as occupations, e.g. teacher

If more than one given and one is wrong credit the first example given. [1]

(b) Two correct lines plotted (63 mm, 11 mm and 26 mm spaces) = 2,
Correct use of key = 1

Allow in any order. Mark independently. [3]

(c) position of Malaysia: from the start of the 28th square to the end of the 31st square from the left,
position of Australia: from the start of the 44th square to the end of the 47th square from the left,

4 square tolerance for each.

Must be shown by a vertical arrow or line with a label. If lines or arrows do not have country names max 1. [2]

Example candidate response – high

2 Table 4 gives information about employment in three countries.

Table 4

Country	Percentage of employment		
	primary industry	secondary industry	tertiary industry
Australia	4	21	75
Malaysia	13	36	51
Bangladesh	63	11	26

(a) State **one** example of a:

(i)   primary industry; ...farming... [1]

(ii) secondary industry; ...manufacturing.. [1]

(iii) tertiary industry ...ecotourism... [1]

(b) Use information from Table 4 to complete Fig. 3 below. Use the key provided.   [3]
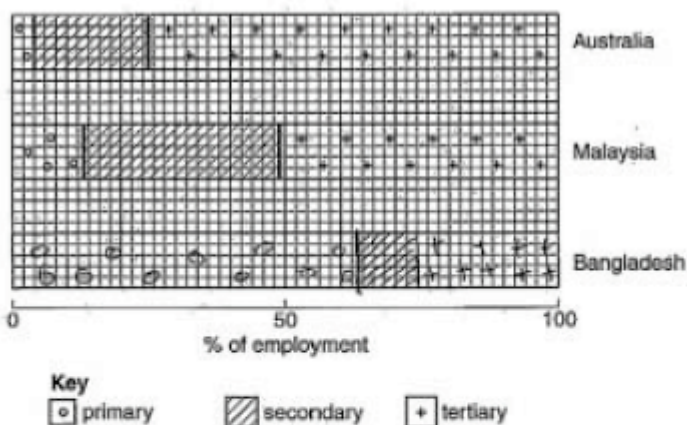
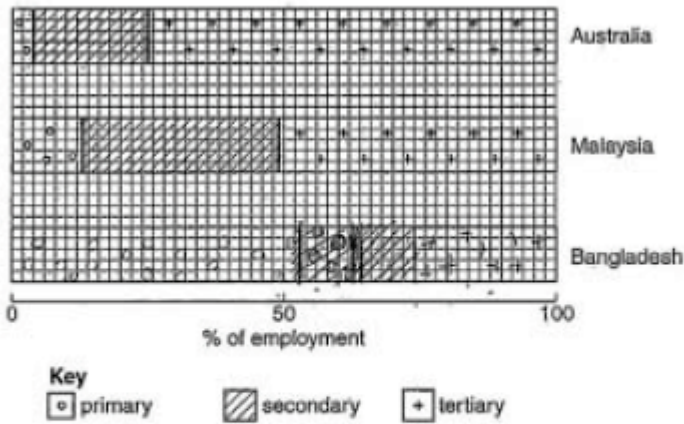
Fig. 3

Example candidate response – high, continued

(c) As a country becomes more economically developed over time, the employment structure changes. Fig. 4 shows how this might occur.

Bangladesh

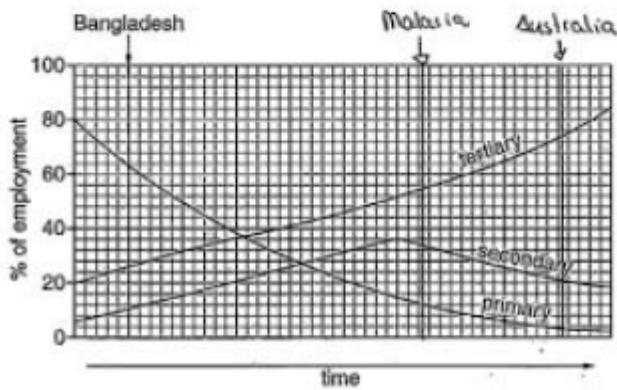Colour lines were a mistake!

Fig. 4

Using information from Table 4, plot Australia (an MEDC) and Malaysia on Fig. 4, Bangladesh (an LEDC) has already been done for you.

[2]
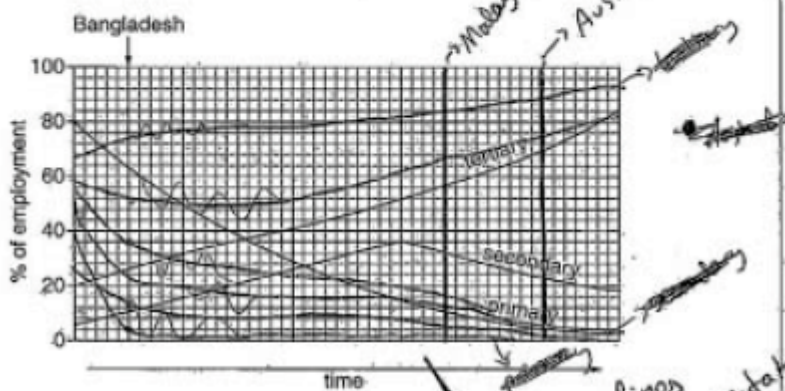
[Total: 8 marks]

Examiner comment – high

The candidate is aware of the difference between primary, secondary and tertiary industries but loses a mark because "manufacturing" alone was not considered sufficient for an example of secondary industry. In part (b), the graph is plotted accurately. In part (c), the candidate understands how to answer the question based on the unfamiliar diagram. The plotting of Australia is accurate but that of Malaysia is outside the tolerance used by examiners.

Mark awarded = 6 out of 8

Example candidate response – middle

2 Table 4 gives information about employment in three countries.

Table 4

Country	Percentage of employment		
	primary industry	secondary industry	tertiary industry
Australia	4	21	75
Malaysia	13	36	51
Bangladesh	63	11	26

(a) State **one** example of a:

(i) primary industry; farming .... [1]

(ii) secondary industry; fisher .... [1]

(iii) tertiary industry teacher .... [1]

(b) Use information from Table 4 to complete Fig. 3 below. Use the key provided. [3]

% of employment
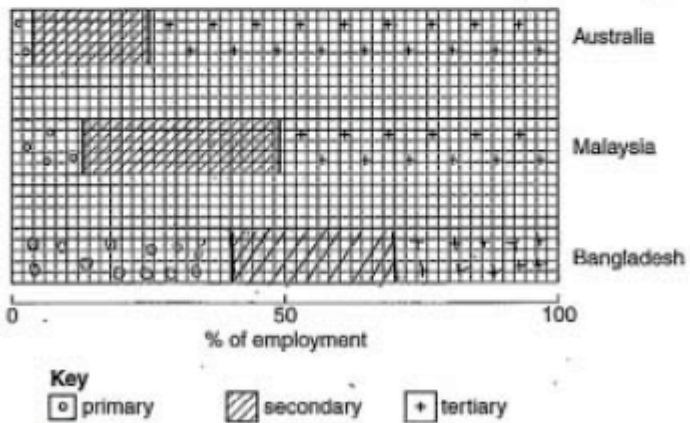
Key
○ primary   ▨ secondary   ⊞ tertiary

Fig. 3

Example candidate response – middle, continued

(c) As a country becomes more economically developed over time, the employment structure changes. Fig. 4 shows how this might occur.
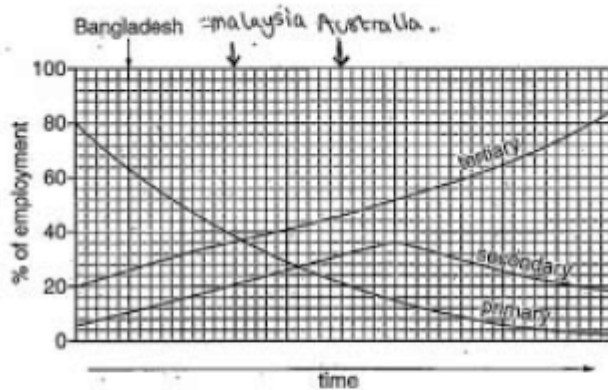

Fig. 4

Using information from Table 4, plot Australia (an MEDC) and Malaysia on Fig. 4. Bangladesh (an LEDC) has already been done for you.

[2]

[Total: 8 marks]

Examiner comment – middle

In part (a), the examples of primary and tertiary industry are correct but not the example of secondary industry. The candidate has plotted one line on the divided bar graph correctly and used the correct key but the second line (on the right) is incorrect. In part (c) the plotting of Australia is correct but the plotting of Malaysia is outside the tolerance.

Mark awarded = 5 out of 8

Example candidate response – low

2   Table 4 gives information about employment in three countries.

Table 4

Country	Percentage of employment		
	primary industry	secondary industry	tertiary industry
Australia	4	21	75
Malaysia	13	36	51
Bangladesh	63	11	26

(a) State **one** example of a:

(i) primary industry; A Lime Stone Company that sells lime — stone in it's raw-form, [1]

(ii) secondary industry; Coffee Company : [1]

(iii) tertiary industry Teaching : [1]

(b) Use information from Table 4 to complete Fig. 3 below. Use the key provided.   [3]

% of employment

Key
☐ primary   ▨ secondary   + tertiary

Fig. 3

Example candidate response – low, continued

(c) As a country becomes more economically developed over time, the employment structure changes. Fig. 4 shows how this might occur.

Fig. 4

Using information from Table 4, plot Australia (an MEDC) and Malaysia on Fig. 4. Bangladesh (an LEDC) has already been done for you.

[2]

[Total: 8 marks]
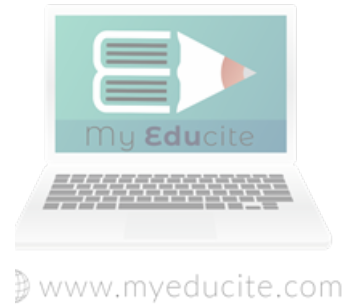
Examiner comment – low

The candidate has been awarded a mark for part (a)(i), with the assumption that the answer is intended to mean the extraction of limestone. The answer to part (a)(ii) is ambiguous; it could mean production, or processing, or selling of coffee. Part (a)(iii) is answered correctly. Neither of the two lines plotted on the divided bar graph are correct but one mark has been awarded for use of the correct key. In part (c), the candidate has not been able to plot points accurately on the unfamiliar diagram.

Mark awarded = 3 out of 8
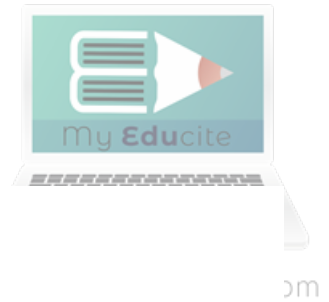
Question 3

Mark scheme

3   (a)   increase (overall or at the beginning),
            more rapid/rapid/exponential/increasing rate at end,
            (allow a variety of expressions)

            Answers such as 'gentle increase at first then a rapid increase' = 2.

            References simply to the slope of the graph = 0.   [2]

     (b) (i)   Japan,
                 Indonesia.   [2]

          (ii)   pressure on finances,
                 pressure on/need for more social services/care/health services,
                 pressure on pension funds,
                 smaller economically active population/not enough workers/military,
                 less tax raised.

                 greater dependency ratio alone = 0   [1]

     (c) (i)   correct position of USA shown by a dot or a cross, (no label needed)   [1]

          (ii)   negative/inverse relationship,
                 one increases as the other decreases etc., e.g. 'as one gets higher the other gets lower'
                 (should not just describe a single point on the graph).   [1]

          (iii) birth rate/use of contraception,
                 migration, (however expressed)
                 death rate/infant mortality,
                 natural increase/decrease,

                 Mark the best factor given.   [1]

Example candidate response – high

3 (a) Fig. 5 shows how the total population of the world has changed.
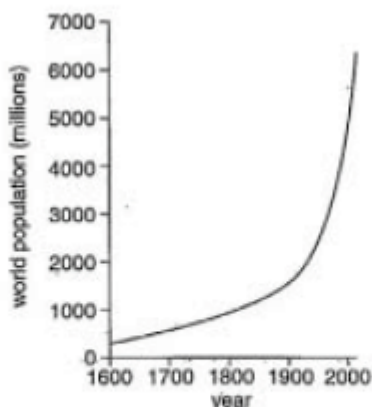

Fig. 5

Describe the changes shown by Fig. 5.

In 1600 the population was about 400 million but as
time went by it drastically increased, in only
100 years it increased to around 6500
million. [2]

(b) Fig. 6 (opposite) shows the percentage of the population over the age of 60 in six countries with large populations.

(i) Which country shown on Fig. 6:

had the largest percentage of over-60s in 2005; Japan.

will have the greatest increase in percentage of over-60s? China [2]

(ii) Suggest one problem the changes shown on Fig. 6 will cause for the governments of the countries.

The government would go bankrupt with
all the money needed to spend on medical
and housing care for such a large
population, they will suffer. [1]

Example candidate response – high, continued
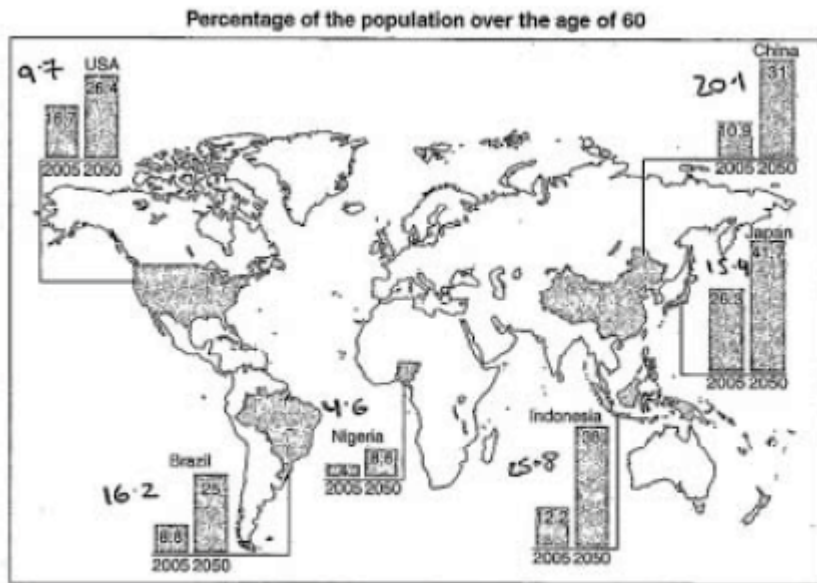
Percentage of the population over the age of 60

Fig. 6

(c) Fig. 7 shows the current population growth rate and life expectancy of the same countries.
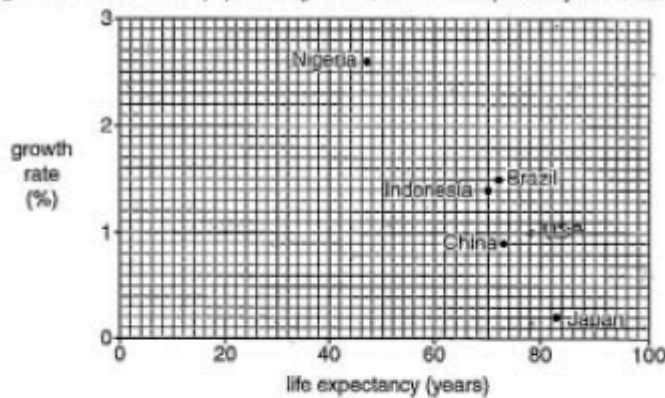
Fig. 7

(i) USA has a life expectancy of 78 and a population growth rate of 1%. Plot this information on Fig. 7. [1]

(ii) Describe the relationship, shown on Fig. 7, between life expectancy and growth rate.

As the growth rate decreases, the life expectancy increases. [1]

(iii) State **one** other factor, apart from life expectancy, which affects population growth rate.

Birth rate [1]

[Total: 8 marks]

Examiner comment – high

In part (a), the candidate has noted the rapid increase in world population but has failed to score the second mark for recognising the initial slower increase. In part (b)(i), the candidate correctly notes that Japan had the largest percentage of over-60s in 2005 but it is Indonesia that will have the greatest increase. The candidate correctly notes that this will increase government expenditure on health care. Part (c) is completely correct: the graph is plotted accurately, the inverse relationship is identified and one other factor affecting population growth rate is correctly given as the birth rate.

Mark awarded = 6 out of 8

Example candidate response – middle

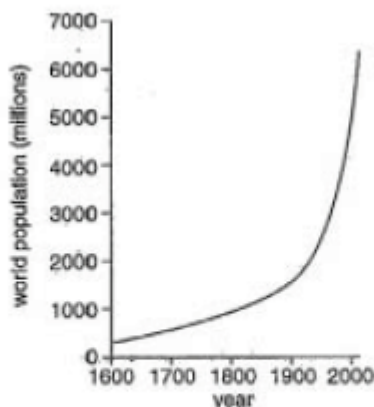3 (a) Fig. 5 shows how the total population of the world has changed.

Fig. 5

Describe the changes shown by Fig. 5.

The population of the world has changed
within a 100 years each, as you can say that
birth rate is high and death rate is quite
low in the world population.   [2]

(b) Fig. 6 (opposite) shows the percentage of the population over the age of 60 in six countries with large populations.

(i) Which country shown on Fig. 6:

had the largest percentage of over-60s in 2005; Japan

will have the greatest increase in percentage of over-60s? Indonesia [2]

(ii) Suggest one problem the changes shown on Fig. 6 will cause for the governments of the countries.

The problem which can occur and cause
government is that, due to the increase the
can't want have enough resources for the people [1]
which can be balanced.
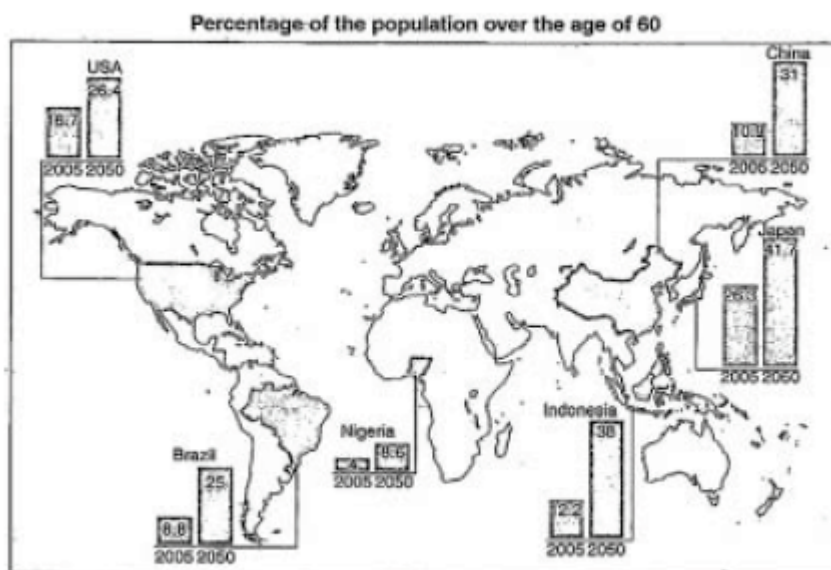
Example candidate response – middle, continued

Percentage of the population over the age of 60

Fig. 6

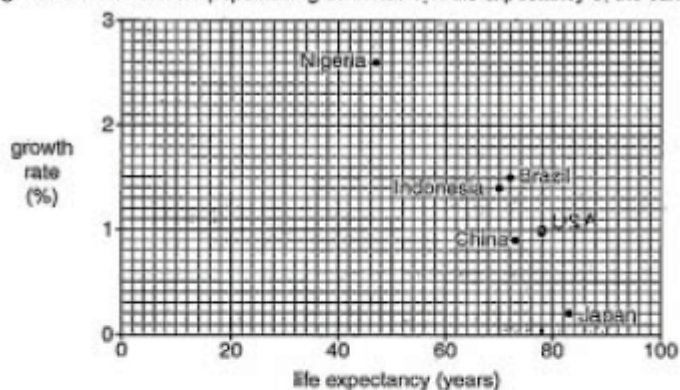(c) Fig. 7 shows the current population growth rate and life expectancy of the same countries.

Fig. 7

(i) USA has a life expectancy of 78 and a population growth rate of 1%. Plot this information on Fig. 7. [1]

(ii) Describe the relationship, shown on Fig. 7, between life expectancy and growth rate.

The relationship is that as life expectancy gets higher, also the growth rate becomes low. [1]

(iii) State **one** other factor, apart from life expectancy, which affects population growth rate.

Infancy [1]

[Total: 8 marks]

Examiner comment – middle

The candidate attempts to give reasons for the changes shown by the graph but does not describe them, as required by the question. Japan and Indonesia are correctly identified in part (b) but the candidate fails to give a sufficiently precise problem that the changes will cause for governments. In part (c), the graph is plotted correctly, the inverse relationship is identified but "infancy" is not a sufficiently clear answer for part (c)(iii).

Mark awarded = 4 out of 8

Example candidate response – low

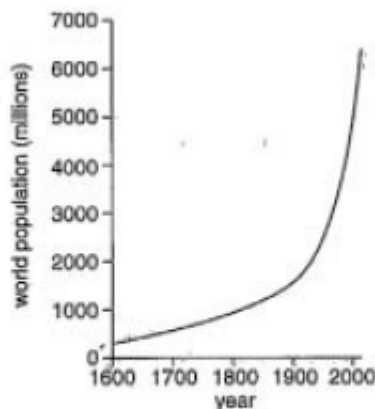3 (a) Fig. 5 shows how the total population of the world has changed.

Fig. 5

Describe the changes shown by Fig. 5.

It Shows the population has grown from 500 to 6500

[2]

(b) Fig. 6 (opposite) shows the percentage of the population over the age of 60 in six countries with large populations.

(i) Which country shown on Fig. 6:

had the largest percentage of over-60s in 2005; Japan

will have the greatest increase in percentage of over-60s? China [2]

(ii) Suggest one problem the changes shown on Fig. 6 will cause for the governments of the countries.

to many people

[1]

Example candidate response – low, continued
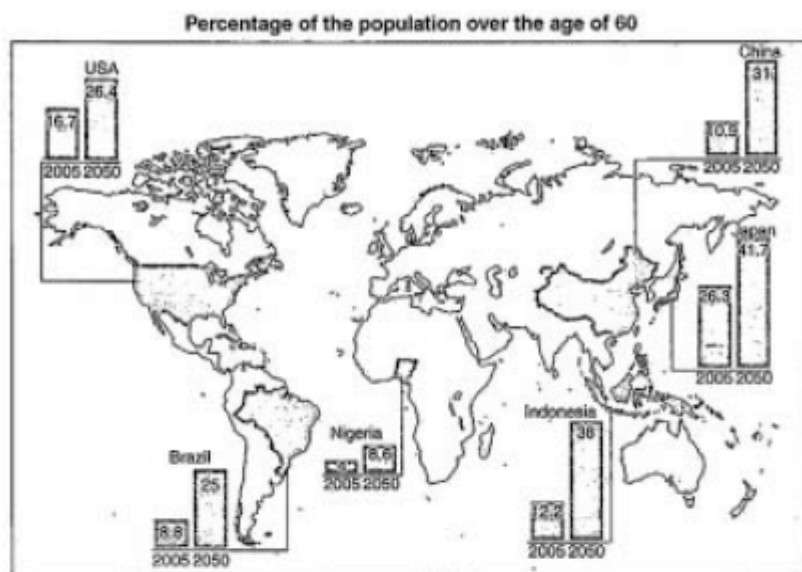
Percentage of the population over the age of 60

Fig. 6

(c) Fig. 7 shows the current population growth rate and life expectancy of the same countries.
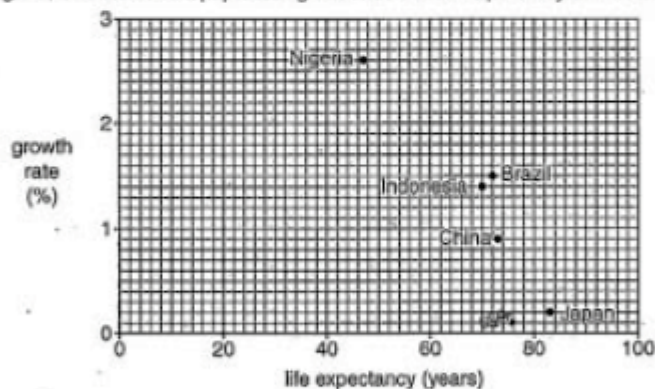

Fig. 7

(i) USA has a life expectancy of 78 and a population growth rate of 1%. Plot this information on Fig. 7. [1]

(ii) Describe the relationship, shown on Fig. 7, between life expectancy and growth rate.

China and USA are espeoting life expectancy [1]

(iii) State **one** other factor, apart from life expectancy, which affects population growth rate.

death rate [1]

[Total: 8 marks]

Examiner comment – low

In part (a), the candidate scores one mark for noting the population growth but the exponential nature of the growth is not mentioned. In part (b)(i), the candidate scores one mark for noting that Japan had the largest percentage of over-60s in 2005 but it is Indonesia that will have the greatest increase not China. In part (b)(ii), the answer "too many people" could refer to the population as a whole and not just the over-60s. In part (c), the scatter graph has not been plotted correctly and the candidate does not appear to understand the meaning of the term *relationship* as used in the question. A third mark has been scored for noting that the death rate is another factor affecting population growth.

Mark awarded = 3 out of 8

Question 4

Mark scheme

4 (a) (i) correct position of E,
            correct position of D,
            correct position of F,

The points of the arrows must be within the tolerance. If letters without arrows are used then the majority of the letter should be within the tolerance.
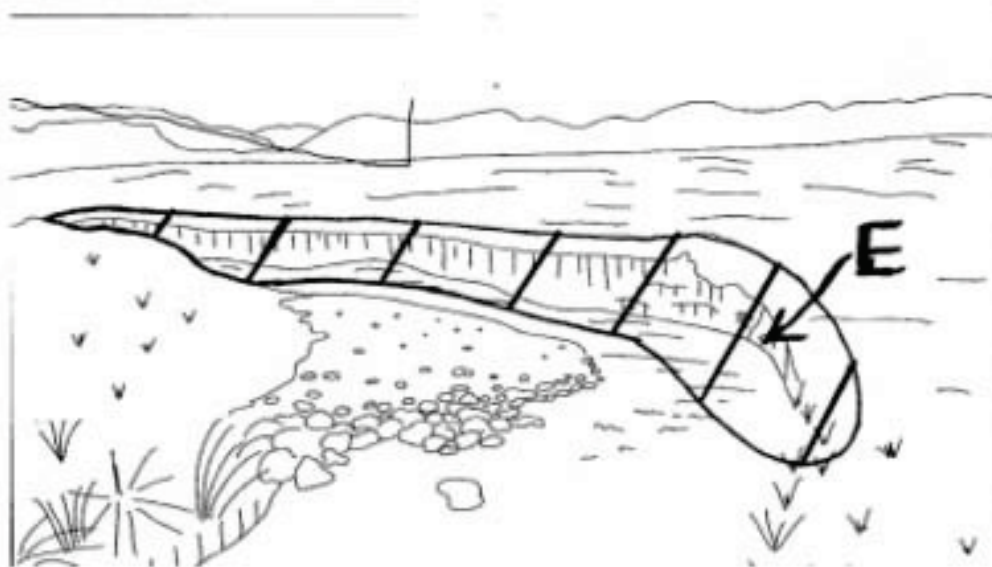
If more than one is given and one is wrong = 0.   [3]

(ii) sketch of curved channel to right of existing channel and parallel or sub-parallel to it,

Allow if just one margin of the river is drawn. If both margins are drawn and one is wrong = 0.   [1]
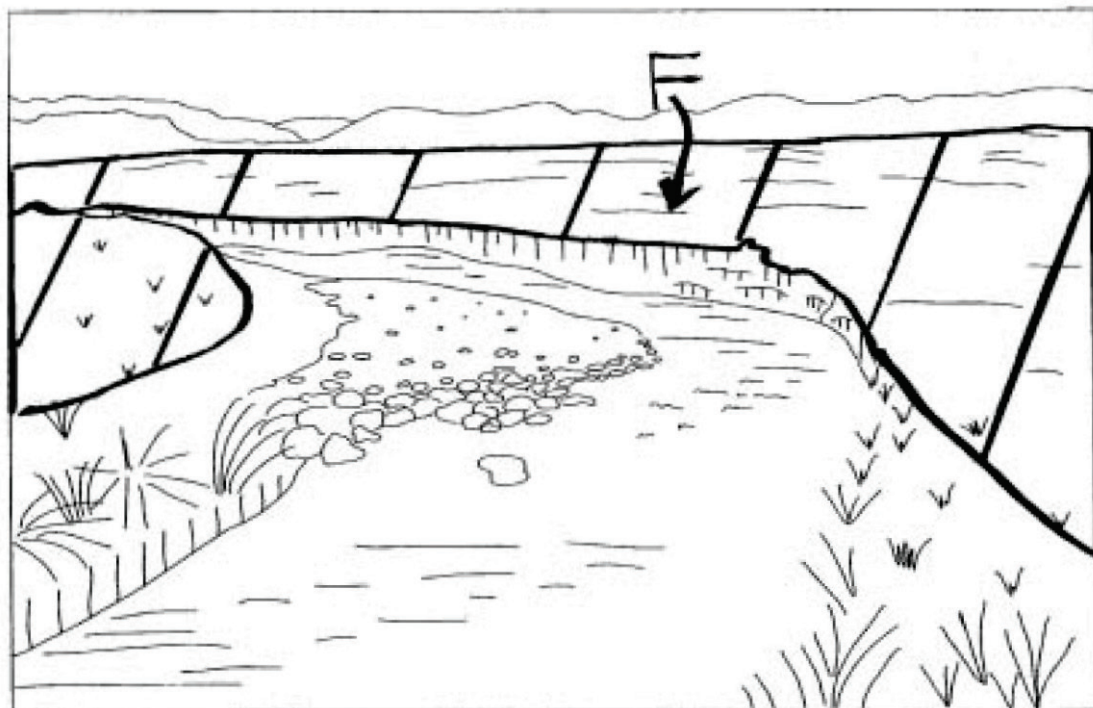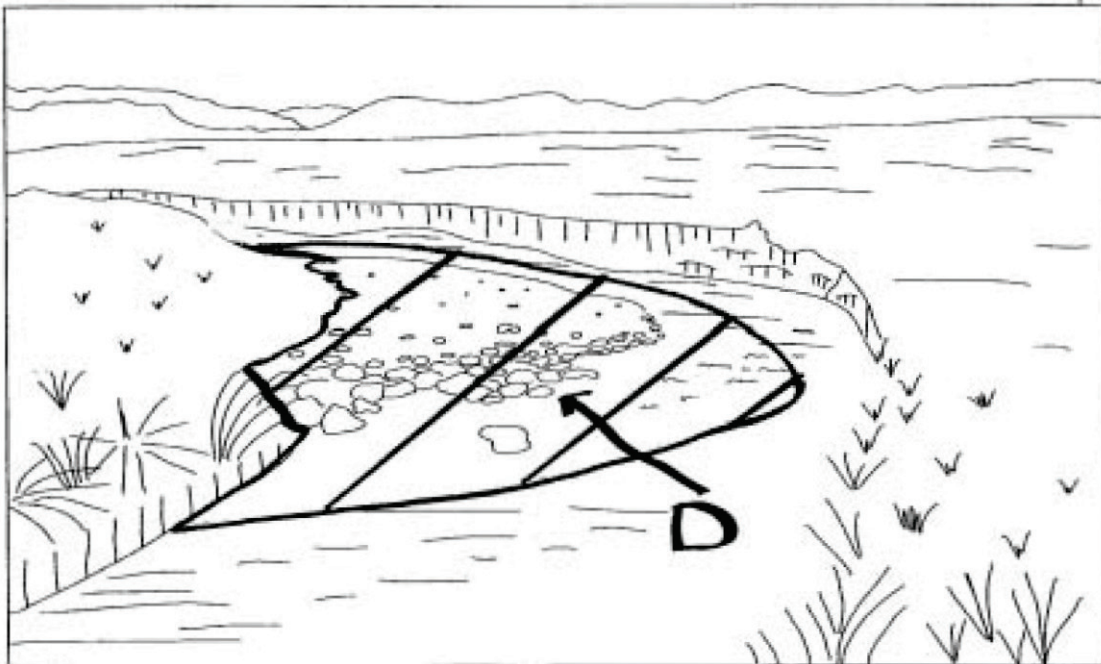
(b) boulders,
     traction,
     clear/slower,
     faster.   [4]

Mark scheme, continued

Example candidate response – high

4   Photograph A (Insert), shows a river channel and the surrounding area. Fig. 8 shows a
    student's field sketch of the same area.
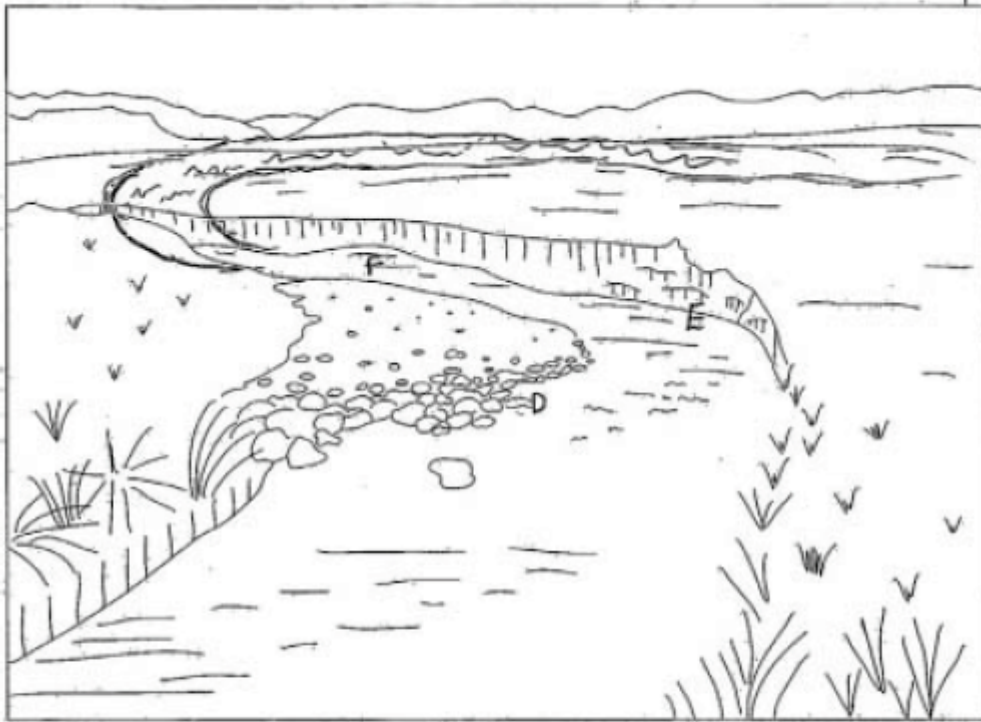

Fig. 8

(a) (i) On Fig. 8, use the correct letter to show the position of:

          a place in the channel where erosion occurs (E);

          a place in the channel where deposition occurs (D);

          the flood plain (F).   [3]

     (ii) On Fig. 8, sketch a likely future position of the channel.   [1]

Example candidate response – high, continued

(b) The student investigated the processes of river transport. The paragraph below is part of the student's field notes.

Using Photograph A, complete the paragraph using **four** of the following words:

muddy

boulders

slower

solution

faster

sand

clear

traction

"The material on the river bed (the bed load) can easily be seen. This material is mostly *boulders*. The process which transported this material is most likely to have been *Traction*. The water in the river is *clear* (~~better~~), so I think suspension is not taking place today. The material on the bed of the river does not seem to be being transported downstream today. I think it could have been moved when there was more water in the river and the water was flowing *faster*."

[4]

[Total: 8 marks]

Examiner comment – high

The candidate has correctly located erosion and deposition on Fig. 8 but the flood plain is incorrectly shown within the river channel. The likely future position of the channel is incorrect as it should show the migration of the meander towards the right of the photograph. The answer to part (b) is completely correct.

Mark awarded = 6 out of 8

Example candidate response – middle

4   Photograph A (Insert), shows a river channel and the surrounding area. Fig. 8 shows a student's field sketch of the same area.

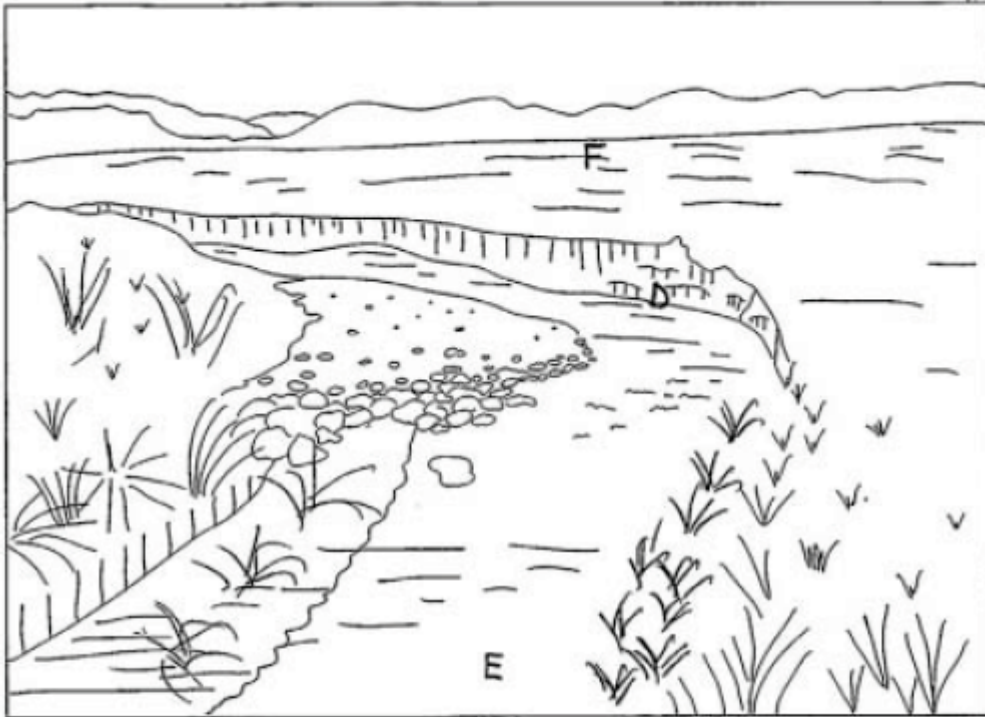Fig. 8

(a) (i)   On Fig. 8, use the correct letter to show the position of:

       a place in the channel where erosion occurs (E);

       a place in the channel where deposition occurs (D);

       the flood plain (F).   [3]

     (ii)   On Fig. 8, sketch a likely future position of the channel.   [1]

Example candidate response – middle, continued

(b) The student investigated the processes of river transport. The paragraph below is part of the student's field notes.

Using Photograph A, complete the paragraph using **four** of the following words:

muddy

boulders

slower

solution

faster

sand

clear

traction

"The material on the river bed (the bed load) can easily be seen. This material is mostly ~~muddy~~ The process which transported this material is most likely to have been ~~traction~~ The water in the river is ~~slower~~, so I think suspension is not taking place today. The material on the bed of the river does not seem to be being transported downstream today. I think it could have been moved when there was more water in the river and the water was flowing ~~faster~~."

[4]

[Total: 8 marks]

Examiner comment – middle

Only the position of the flood plain is correct in part (a)(i). In part (a)(ii), the future position of the channel has been given the benefit of the doubt and awarded a mark because it is to the right of the existing channel. Part (b) has been awarded three of the four marks available; the first response should have been *boulders* and not *muddy*.

Mark awarded = 5 out of 8

Example candidate response – low

4   Photograph A (Insert), shows a river channel and the surrounding area. Fig. 8 shows a student's field sketch of the same area.
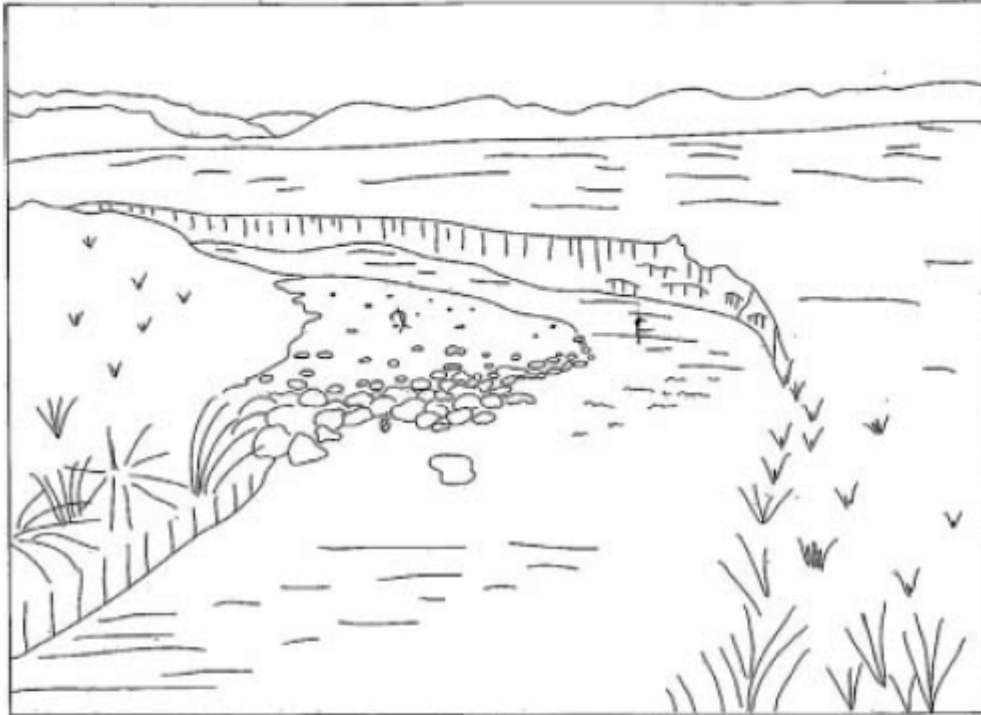

Fig. 8

(a) (i)   On Fig. 8, use the correct letter to show the position of:

a place in the channel where erosion occurs (E);

a place in the channel where deposition occurs (D);

the flood plain (F).   [3]

(ii) On Fig. 8, sketch a likely future position of the channel.   [1]

Example candidate response – low, continued

(b) The student investigated the processes of river transport. The paragraph below is part of the student's field notes.

Using Photograph A, complete the paragraph using **four** of the following words:

> muddy
>
> boulders
>
> slower
>
> solution
>
> faster
>
> sand
>
> clear
>
> traction

"The material on the river bed (the bed load) can easily be seen. This material is mostly .....Sand..... . The process which transported this material is most likely to have been .....slower..... . The water in the river is .....Clean....., so I think suspension is not taking place today. The material on the bed of the river does not seem to be being transported downstream today. I think it could have been moved when there was more water in the river and the water was flowing .....faster..... ."

[4]

[Total: 8 marks]

Examiner comment – low

Only deposition has been labelled correctly on Fig. 8. The candidate has not attempted to label the future position of the channel. In part (b) the candidate has been awarded two marks for *clear* and *faster*.

Mark awarded = 3 out of 8

Question 5

Mark scheme

5   (a)   Z,
         X,

         2 correct = 2
         1 correct or reversed = 1   [2]

    (b) (i)   tropical,
              (fairly) high temperatures/hot in summer/October/November/December/January/February/
              March/beginning and end of year,
              cool/warm/mild in winter/April/May/June/July/August/September/middle of year, (low
              temperatures = 0)
              (temperature increases, decreases, higher, lower etc. = 0)
              small/moderate annual temperature range,

              low rainfall/dry climate,
              desert,
              rain in summer/any month from September to May/beginning and end of year, (allow if
              stated as 'high' rainfall)
              dry/drought in winter/June/July/August/middle of year, (not little rain)
              (rainfall increases, decreases, higher, lower etc. = 0)

              When the candidate is describing rainfall, do not allow hot months to equal summer or
              cold months to equal winter.   [4]

         (ii) high pressure,
              descending air,
              offshore/NE/E winds,
              large distance from sea/inland,
              stable air,

              Ignore the numbers 1 and 2 on the question paper.

              (dry air, rainshadow, little evaporation, no moist winds = 0)   [2]

Example candidate response – high

5   Figs 9A and 9B show the climate at two places in Africa. Fig. 10 (below) shows three
    locations, X, Y and Z.

Fig. 9A
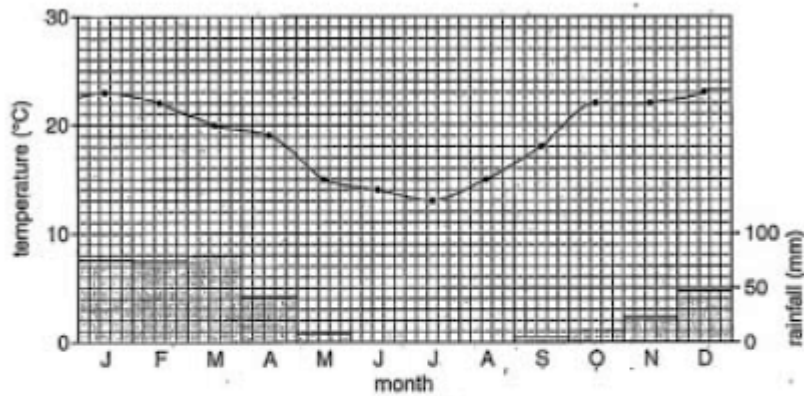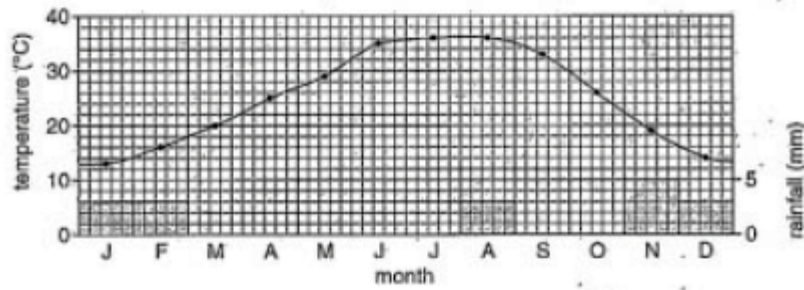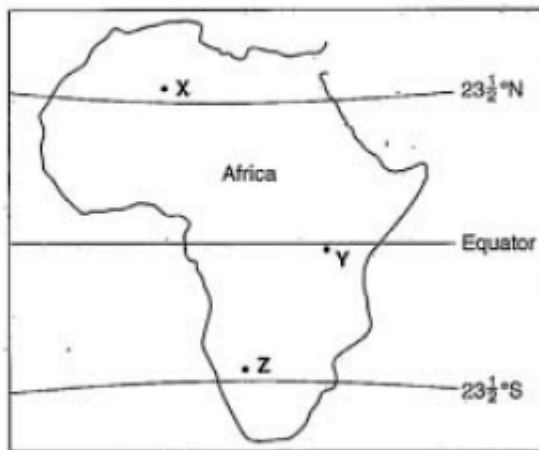

Fig. 9B

Fig. 10

Example candidate response – high, continued

(a) Figs 9A and 9B show the climate at two of the three locations shown on Fig.10. For each climate, state which is the correct location, either X, Y or Z.

Fig.9A .... Z ✗ Z

Fig.9B .... ✗ Z X

[2]

(b) (i) Describe the temperature and rainfall shown on Fig. 9A. There is no need to use statistics in your answer.

From January to June the temperature decreases and from July to December the temperatures increases again. The highest rain fall is from June to may, then declines half way in August, from June to July there is no rain, where the temper-ature is coolest from september to december the rain increases slowly along with the increase in temperature.

[4]

(ii) Give **two** reasons for the low rainfall total shown on Fig. 9B.

1 its not close enough to the sea to get the moisture for rain required amount of high rain.

2 It located to near to a tropical desert, about no prevailing winds from the sea.

[2]

[Total: 8 marks]

Examiner comment – high

Candidates found this a demanding question and the marks were lower than for other questions. In part (a), the candidate correctly selects Z for Fig. 9A and X for Fig. 9B, identifying two desert locations, and in the correct hemispheres. In part (b)(i), two marks have been awarded, one for noting the rainfall in May, and one for noting the drought in June and July. 'June' on the third line is probably a slip and the candidate really means January. No marks have been awarded for the references to increasing and decreasing temperatures and rainfall. In part (b)(ii), one mark has been awarded for distance from the sea as a cause of aridity.

Mark awarded = 5 out of 8

Example candidate response – middle

5   Figs 9A and 9B show the climate at two places in Africa. Fig. 10 (below) shows three locations, **X**, **Y** and **Z**.
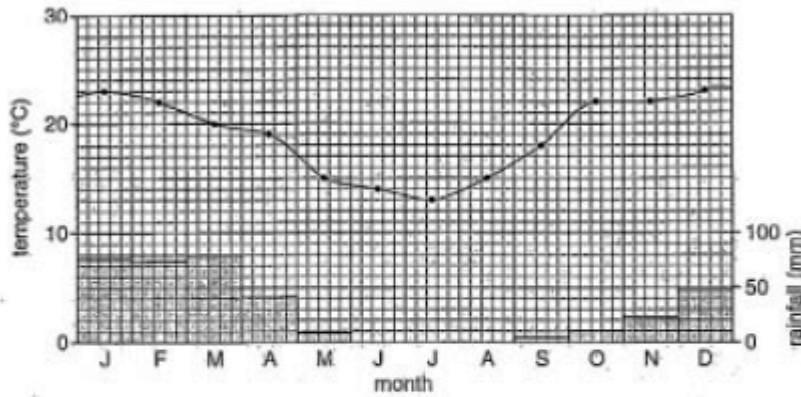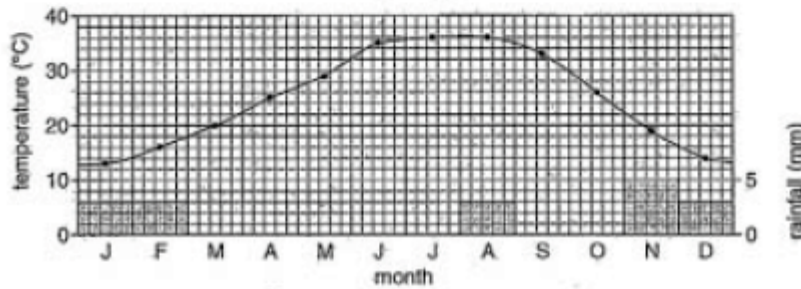

Fig. 9A

Fig. 9B

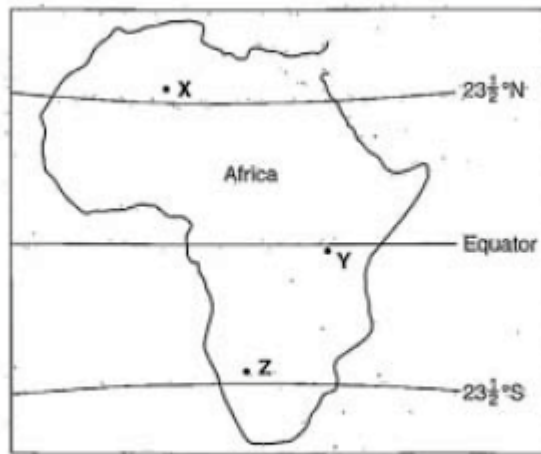Fig. 10

Example candidate response – middle, continued

(a) Figs 9A and 9B show the climate at two of the three locations shown on Fig.10. For each climate, state which is the correct location, either **X, Y** or **Z**.

Fig.9A ...... X ......

Fig. 9B ...... Y ......

[2]

(b) (i) Describe the temperature and rainfall shown on Fig. 9A. There is no need to use statistics in your answer.

The temperature is relatively high above 6°C all year round and its not very hot in January and December the rainfall was also pretty high with no rain in August June July and August and Rainfall readings may exceed 7mm during the month of January to much with a few dry spells in september.

[4]

(ii) Give **two** reasons for the low rainfall total shown on Fig. 9B.

1 It is a Desert Climate and Deserts recieves less or no rain at all.

2 Desert have no vegitation which can transpire to form rain.

[2]

[Total: 8 marks]

Examiner comment – middle

Mid-level candidates found this a demanding question. The answer to part (a) is incorrect. In part (b)(i), three marks have been awarded for *hot in January and December, rainfall in January and December,* and *no rain in June, July and August*. No valid reasons are given for low rainfall in part (b)(ii).

Mark awarded = 3 out of 8

Example candidate response – low

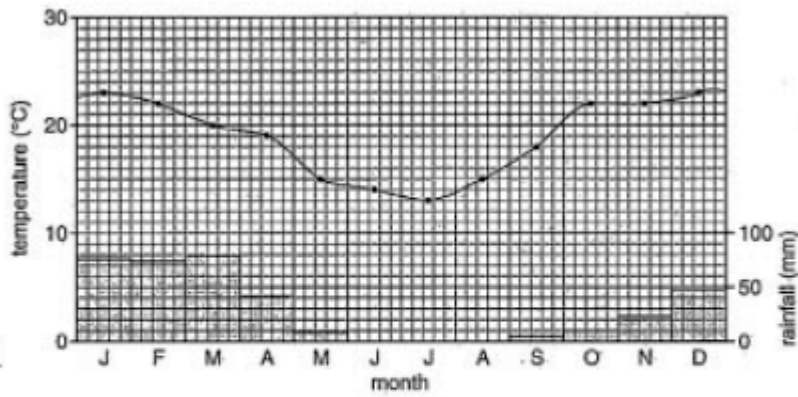5   Figs 9A and 9B show the climate at two places in Africa. Fig. 10 (below) shows three locations, **X**, **Y** and **Z**.
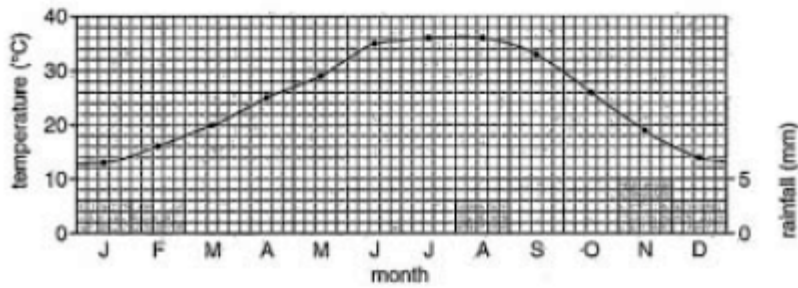

Fig. 9A

Fig. 9B

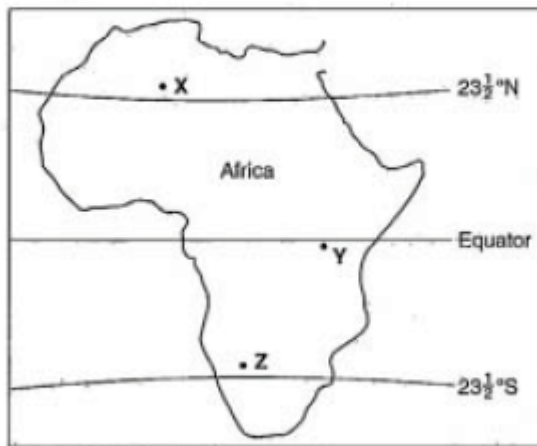Fig. 10

Example candidate response – low, continued

(a) Figs 9A and 9B show the climate at two of the three locations shown on Fig.10. For each climate, state which is the correct location, either **X, Y or Z.**

Fig.9A X

Fig. 9B .... ~~Y~~ Z

[2]

(b) (i) Describe the temperature and rainfall shown on Fig. 9A. There is no need to use statistics in your answer.

During the Months of January to March, the temperature goes from high to low and during the Month of June To August, there is ~~a high~~ no high ~~a high~~ temperature, but during the Months of September to December, the rainfall goes from a low to high rate. There Is higher temperature In the Month of March and lower temperature In the Month of May, While there Is higher rainfall in the Math of December and Lower rainfall In the Month of september

[4]

(ii) Give **two** reasons for the low rainfall total shown on Fig. 9B.

1 It Is always Sunny, alot of Sun -

2 And ~~this~~ In Africa $23\frac{1}{2}$ In both North and south.

[2]

[Total: 8 marks]

Examiner comment – low

One mark has been awarded in part (a) because the candidate has selected the two desert locations but placed them in the wrong hemispheres. In part (b)(i), a mark has been awarded on the first two lines for high temperatures in *January*. A mark has been awarded on lines five and six for rainfall in *September to December*. No valid reasons are given for low rainfall in part (b)(ii).

Mark awarded = 3 out of 8
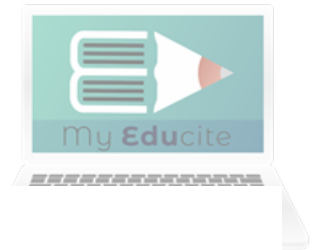
Question 6

Mark scheme

6 (a) 9.8–10.2 (km), Allow in metres if units stated.
   6 (minutes),

   Allow if candidate rounds answers to nearest minute. Don't insist on accuracy to two decimal places. [2]

(b) Lorry driver	save time/quicker, save fuel, avoid congestion in town, shorter, easier = 0	[1]
Resident of village	noise, visual pollution, exhaust fumes/air pollution, lower house prices, potentially dangerous new road,	[1]
Town resident	reduce noise, reduce visual pollution, reduce exhaust fumes, make journeys quicker/less congestion/<u>less traffic therefore easier to travel</u>, increased road safety,	[1]
Shop owner	reduced trade/profits,	[1]
Manager of factory	route not helping transport/access/no advantage/would not use it/ travel times unchanged, a western by-pass would have been helpful, ('road is on the other side of town' alone = 0)	[1]
Environmentalists	destruction of woodland/habitats/countryside/natural land, disturbs wild life, pollution = 0	[1]

   Increase/decrease in traffic alone = 0 throughout.
   Pollution without type = 0 throughout.

9 km	5.4 minutes	5 minutes 24 seconds
9.8 km	5.88 minutes	5 minutes 52.8 seconds
9.9 km	5.94 minutes	5 minutes 56.4 seconds
10.1 km	6.06 minutes	6 minutes 3.6 seconds
10.2 km	6.12 minutes	6 minutes 7.2 seconds
11 km	6.6 minutes	6 minutes 36 seconds

Example candidate response – high

6   Fig. 11 is a map showing a town and the route of a proposed new road.
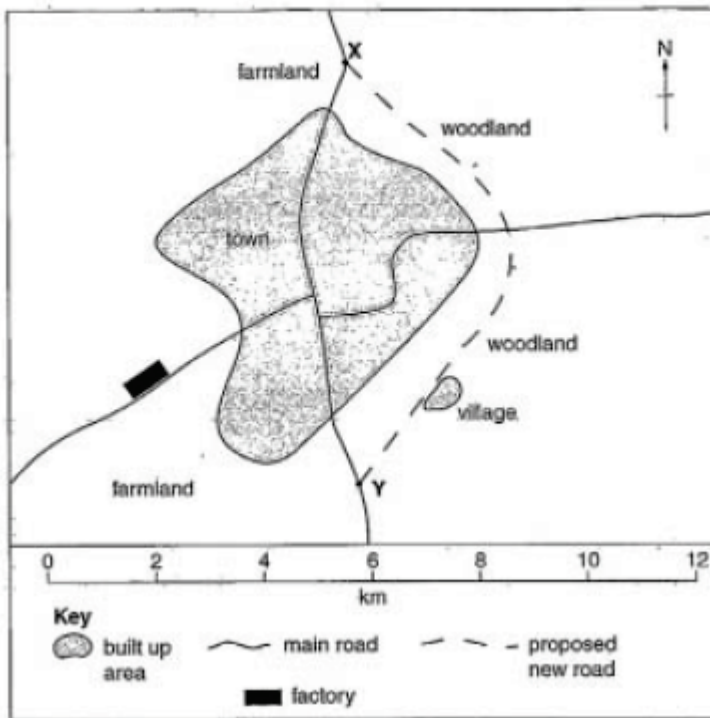

Fig. 11

Table 5 compares the main road through the town with the proposed new road.

Table 5

Comparison	main road through the town	new road
distance from **X** to **Y**	8 km	*10 km*
average speed of vehicles between **X** and **Y**	32 km/hour	100 km/hour
average journey time between **X** and **Y**	15 minutes	*6 minutes*

Example candidate response – high, continued

(a) Use information in Fig. 11 to complete Table 5. [2]

(b) Using Fig. 11 and Table 5, suggest **one** reason why each of the following people is either for or against the proposed new road.

   (i) Long distance lorry driver – For ✓

   Reason because on the new road, the driver can reach higher speeds which will help him get to his destination faster. [1]

   (ii) Resident of village – Against ✗

   Reason The road would bring noise to the village because of the vehicles that pass. [1]

   (iii) Town resident – For ✓

   Reason Congestion on the the main road will reduce. [1]

   (iv) Owner of shop in CBD – Against ✗

   Reason He will lose customers for there will be less vehicles passing by the owner's shop. [1]

   (v) Manager of factory – Against ✗

   Reason The new road would be further away from his factory, making transportation more costly. [1]

   (vi) Environmental action group – Against ✗

   Reason Constructing the road would mean that the natural woodland would be destroyed or built over. [1]

[Total: 8 marks]

Examiner comment – high

Part (a) is completely correct. In part (b), the candidate gives valid reasons for the opinions of all the various people except the factory manager. (The new road will not make the costs greater.)

Mark awarded = 7 out of 8

Example candidate response – middle

6   Fig. 11 is a map showing a town and the route of a proposed new road.

Fig. 11

Table 5 compares the main road through the town with the proposed new road.

Table 5

	main road through the town	new road
distance from **X** to **Y**	8 km	~~10 km~~ 10 Km
average speed of vehicles between **X** and **Y**	32 km/hour	100 km/hour
average journey time between **X** and **Y**	15 minutes	60 mins

$$t = \frac{d}{s} = \frac{910}{100}$$
$$= 0.1$$

Example candidate response – middle, continued

(a) Use information in Fig. 11 to complete Table 5. [2]

(b) Using Fig. 11 and Table 5, suggest **one** reason why each of the following people is either for or against the proposed new road.

(i) Long distance lorry driver – *For* ✓

Reason .....Because it takes.....them.....away from main.........
.....road traffic and they can arrive their faster.........
.... [1]

(ii) Resident of village – *Against* ✗

Reason .....The road.....would be built right next to the.........
.....village bis of cars passing.....village may cause noise.........
.......pollution.".. [1]

(iii) Town resident – *For* ✓

Reason .."They would like to find.....a faster way to.........
.....work and not get held up in.....morning or after.....
.....afternoon traffic:... [1]

(iv) Owner of shop in CBD – *Against* ✗

Reason .....Out of town shopping centres.....may be built.........
.....taking away all most of its.....customers.I.........................
.... [1]

(v) Manager of factory – *Against* ✗

Reason .....Because.....people wouldn't be able to pass.........
.....through.....road to his factory.....meaning no.........
.....people would not visit the factory would not. [1]

(vi) Environmental action group – *Against* ✗

Reason .....This would.....cause.....more atmospheric pollution.....
.....too many cars
because of car exhausts pipes. on the road.:.........................
.... [1]

[Total: 8 marks]

Examiner comment – middle

The candidate has measured the distance (10km) correctly but has been unable to convert this into the correct journey time. In part (b), correct reasons are given for the first four people's views: the lorry driver will travel faster, the village will suffer from noise, the town will have less congestion and the shopkeeper will lose customers. In part (b)(v), the candidate has crossed out the answer but it does not contain any valid points. In part (b)(vi), pollution was not accepted as a valid reason and, if it were, the type of pollution should have been specified.

Mark awarded = 5 out of 8

Example candidate response – low

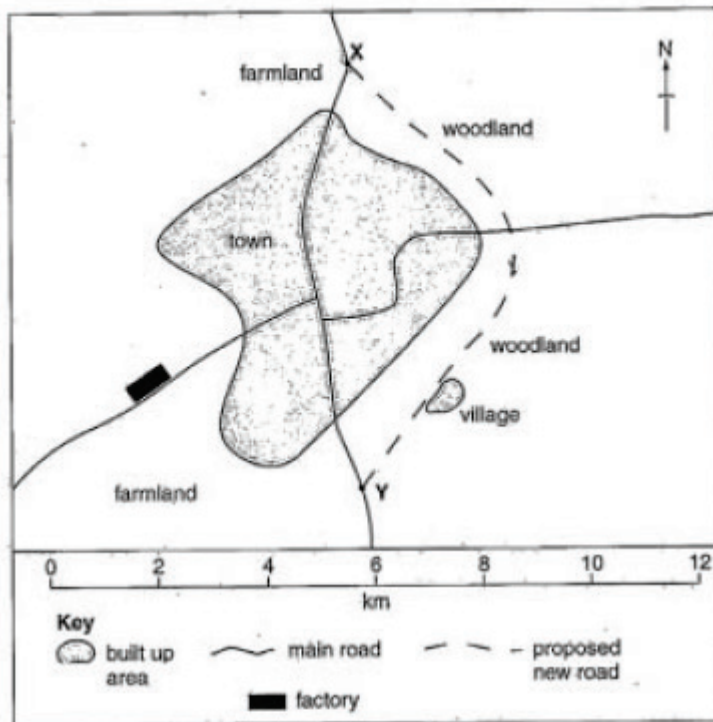6   Fig. 11 is a map showing a town and the route of a proposed new road.

Fig. 11

Table 5 compares the main road through the town with the proposed new road.

Table 5

	main road through the town	new road
distance from X to Y	8 km	10 km
average speed of vehicles between X and Y	32 km/hour	100 km/hour
average journey time between X and Y	15 minutes	10 minutes

Example candidate response – low, continued

(a) Use information in Fig. 11 to complete Table 5. [2]

(b) Using Fig. 11 and Table 5, suggest **one** reason why each of the following people is either for or against the proposed new road.

(i) Long distance lorry driver – *For* ✓

Reason ...They spend less time if they take the new west road.

.... [1]

(ii) Resident of village – *Against* ✗

Reason ...They have to spend much time to go in the centre.

.... [1]

(iii) Town resident – *For* ✓

Reason ...There is less traffic congestion

.... [1]

(iv) Owner of shop in CBD – *Against* ✗

Reason ...They have to spent much time in car for go to the city center.

.... [1]

(v) Manager of factory – *Against* ✗

Reason ...They spent more time for go in the factory

.... [1]

(vi) Environmental action group – *Against* ✗

Reason ...They spent to much time to go in a different road different to the main road.

.... [1]

[Total: 8 marks]

Examiner comment – low

The candidate has measured the distance (10km) correctly but has been unable to convert this into the correct journey time. The candidate notes that the lorry driver will take less time (part (b)(i)) and that the town resident will face less congestion (part (b)(iii)) but is unable to give valid reasons for the views of the other people.

Mark awarded = 3 out of 8