



UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
International General Certificate of Secondary Education

CANDIDATE
NAME

CENTRE
NUMBER

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GEOGRAPHY

0460/22

Paper 2

October/November 2012

1 hour 30 minutes

Candidates answer on the Question Paper.

- Additional Materials:
- Ruler
 - Protractor
 - Plain paper

1:50 000 Survey Map Extract is enclosed with this Question Paper.

READ THESE INSTRUCTIONS FIRST

Write your Centre number, candidate number and name in the spaces provided.
 Write in dark blue or black pen.
 You may use a soft pencil for any diagrams, graphs or rough working.
 Do not use staples, paper clips, highlighters, glue or correction fluid.
DO NOT WRITE ON ANY BARCODES.

Answer **all** questions.
 The Insert contains Photographs A and B for Question 3.
 The Survey Map Extract and the Insert are **not** required by the Examiner.
 Sketch maps and diagrams should be drawn whenever they serve to illustrate an answer.

At the end of the examination, fasten all your work securely together.
 The number of marks is given in brackets [] at the end of each question or part question.

For Examiner's Use	
Q1	
Q2	
Q3	
Q4	
Q5	
Q6	
Total	

This document consists of **16** printed pages and **1** Insert.

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

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

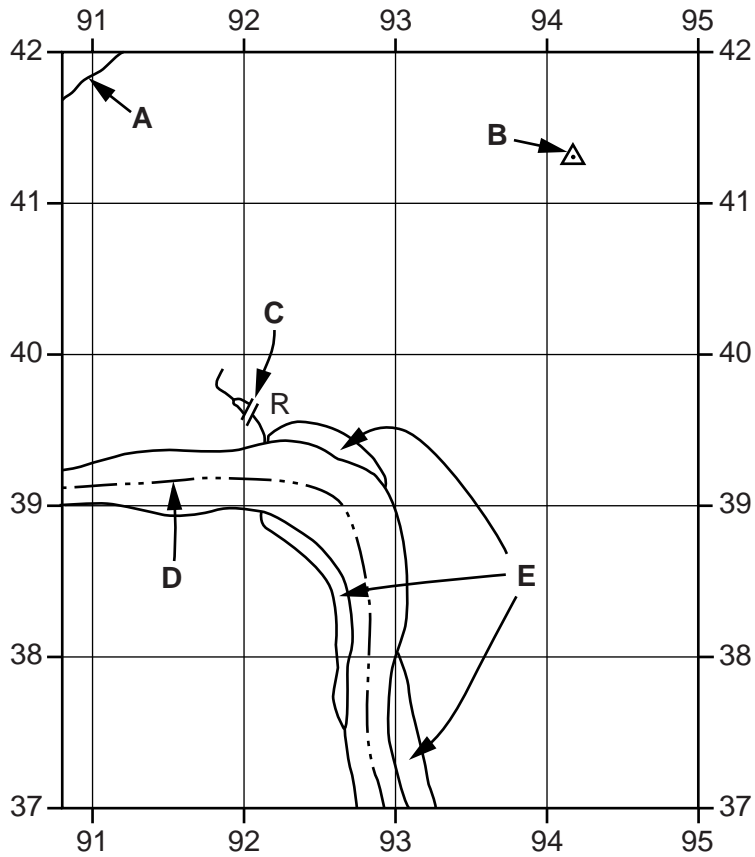


Fig. 1

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

- (i) the type of road at **A**;
.....[1]
- (ii) feature **B**;
.....[1]
- (iii) feature **C**;
.....[1]
- (iv) the type of boundary along the river at **D**;
.....[1]
- (v) the vegetation at **E**.
.....[1]

(b) Study the area around Beitbridge Station in the north west of the map extract.

(i) Give the six figure grid reference of the bridge where the railway crosses over the wide tarrad road. Circle **one** correct answer below.

427913 914428 922428 912427 [1]

(ii) What feature is used to keep the railway level in this area?

.....[1]

(iii) Give **two** pieces of map evidence that suggest the area around Beitbridge Station is important for livestock (sheep or cattle).

1

2[2]

(c) Study the three named rivers in the area, the Limpopo, the Lipande and the Tombwane. The table below compares features of the three rivers. Complete the table by putting ticks (✓) in the correct **three** boxes. Use only **one** tick for each row.

	Limpopo	Lipande	Tombwane	All of these rivers	None of these rivers
channel more than 300m wide					
many tributaries					
flows from north east to south west					

[3]

(d) Fig. 2 is a cross section along northing 42 from 980420 to 040420.

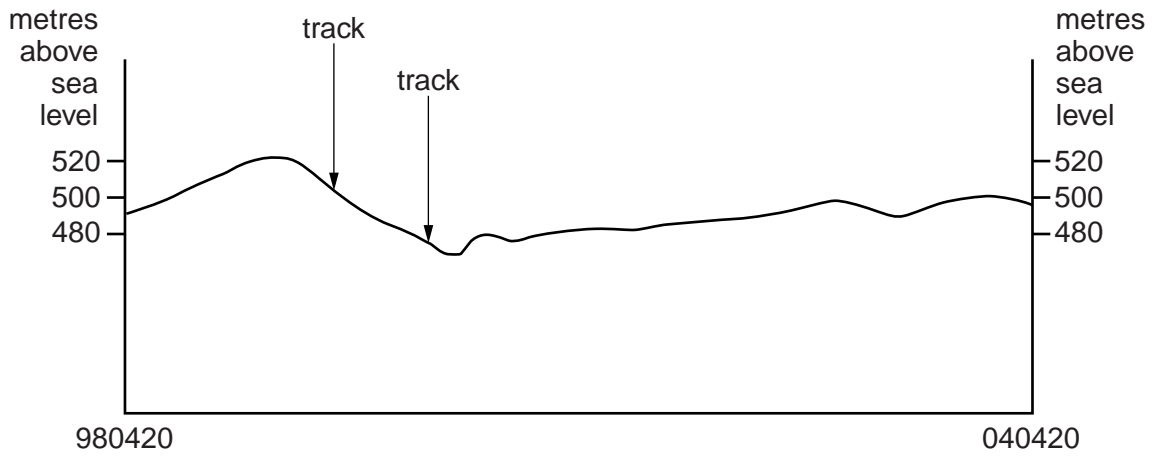


Fig. 2

On Fig. 2, using labelled arrows, mark the positions of:

- (i) the Lipande river; [1]
- (ii) a gravel or earth road; [1]
- (iii) a power line. [1]

- (e) Fig. 3 shows area X in the south east of the map extract, south and east of the Tombwane river.

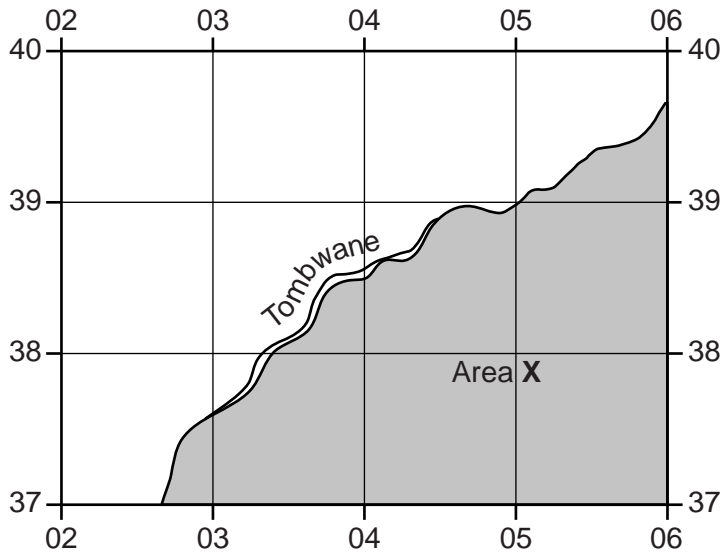


Fig. 3

- (i) Describe the features of the settlement in area X.

.....

[3]

- (ii) Identify **one** type of transport available to people living in area X.

.....[1]

- (iii) What is the height above sea level of the highest point in area X? Tick (✓) **one** box below.

Height	Tick (✓)
under 500m	
520 m	
560 m	
over 600 m	

[1]

[Total: 20 marks]

2 Fig. 4 is a map showing the coastal settlement of Sargent Beach in Texas, USA. The settlement has been affected by coastal erosion.

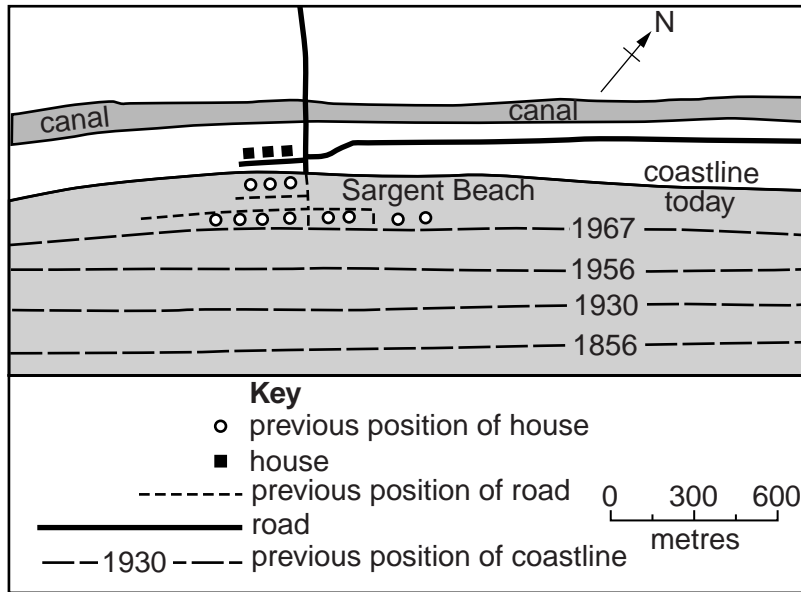


Fig. 4

(a) (i) State **two** human features of the settlement at Sargent Beach which have been destroyed by coastal erosion since 1967.

1 2 [1]

(ii) Measure the distance that the coastline has retreated at Sargent Beach since 1856. Tick (✓) **one** box below.

Distance	Tick (✓)
250 m	
450 m	
650 m	
850 m	

[1]

(b) (i) Name **one** process of erosion which may have caused the coastline to retreat

.....

(ii) Which is the correct description of the waves that have affected the coast? Tick (✓) **one** box below.

Description of wave	Tick (✓)
Constructive. Swash stronger than backwash.	
Destructive. Swash stronger than backwash.	
Destructive. Backwash stronger than swash.	
Constructive. Backwash stronger than swash.	

[1]

(c) Fig. 5 is a graph showing the amount of coastal erosion at Sargent Beach since 1856.

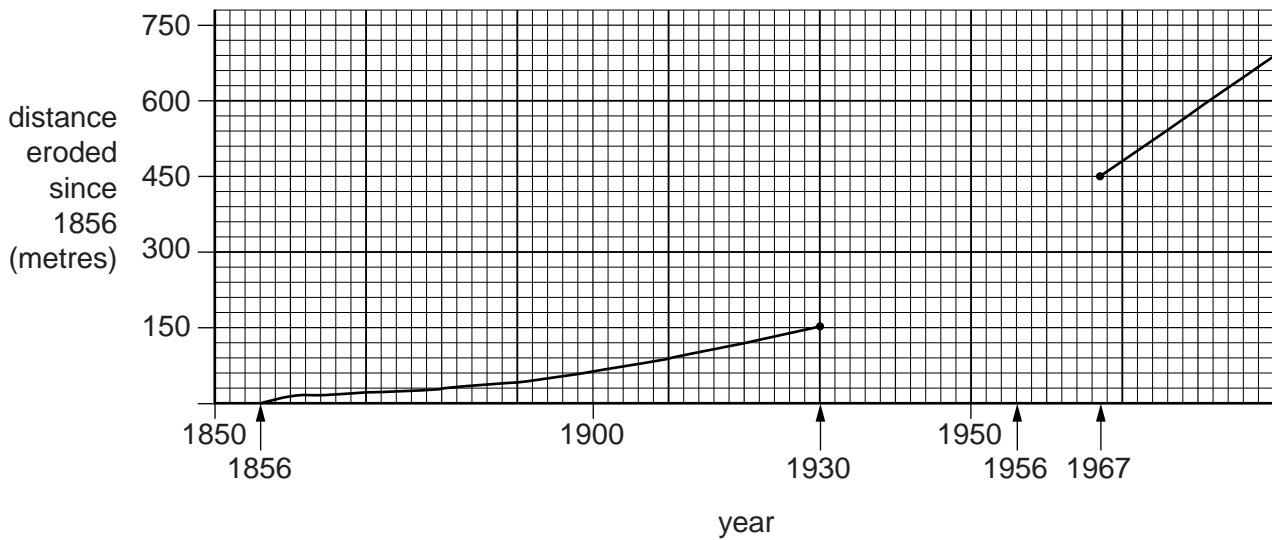


Fig. 5

(i) The distance eroded by 1956 was 300 metres. Complete Fig. 5 by adding this information. [1]

(ii) How has the rate of coastal erosion changed?

.....
.....[1]

(d) The state of Texas is considering engineering projects to protect Sargent Beach and other similar areas from coastal erosion.

(i) Using evidence from Fig. 4, suggest **one** advantage of the project for Sargent Beach.

.....
.....[1]

(ii) Suggest **one** possible disadvantage of such projects.

.....
.....[1]

[Total: 8 marks]

- 3 Photographs A and B (Insert) show two rivers. For each photograph, describe the river and the **relief** features of its valley.

Photograph A

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Photograph B

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4 (a) Table 1 below lists five types of population migration, A–E.

Table 1

A	internal migration
B	international migration
C	rural-urban migration
D	voluntary migration
E	involuntary migration

For each of the following definitions, select the correct letter from Table 1:

(i) migration of people to another country; Letter [1]

(ii) migration because of conflict, natural disasters or famine. Letter [1]

(b) Fig. 6 is a map showing cities with more than a million foreign born residents.



Fig. 6

Describe the distribution of the cities on Fig. 6.

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(c) Figs 7A and 7B show the countries of origin of foreign born residents of London and Paris, two of the cities shown on Fig. 6.

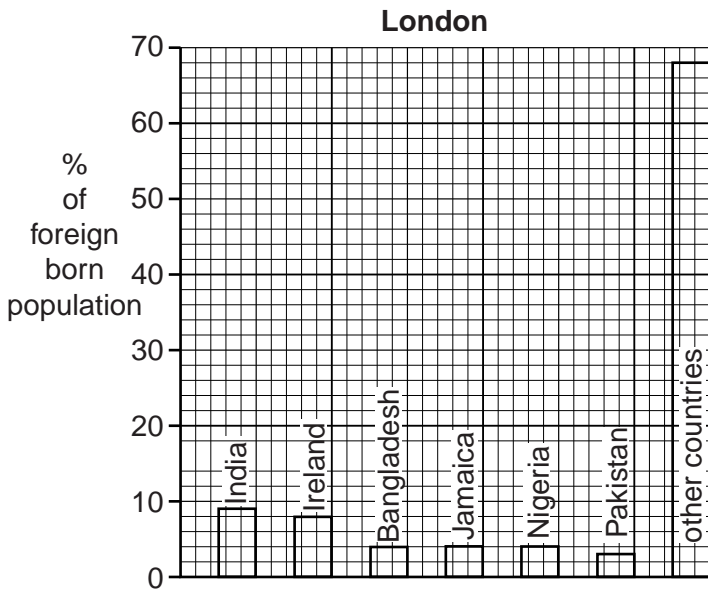


Fig. 7A

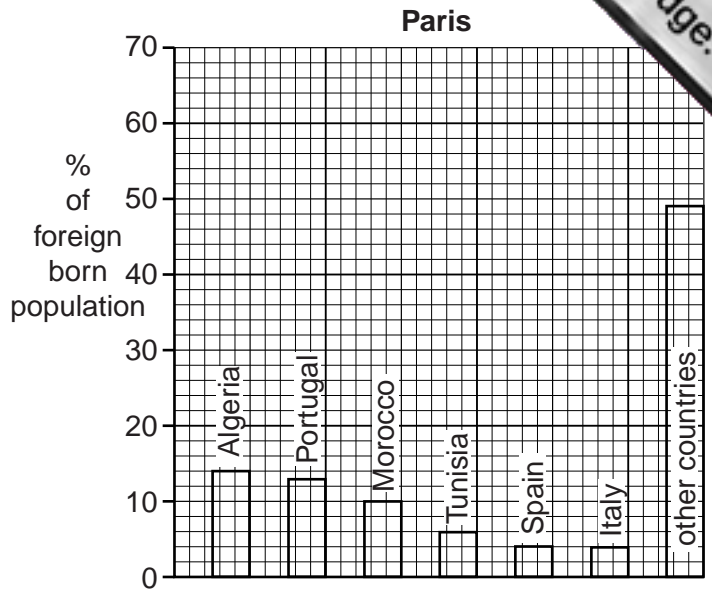


Fig. 7B

Using Figs 6, 7A and 7B, describe the differences in the countries of origin of the foreign born residents of London and Paris.

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[3]

[Total: 8 marks]

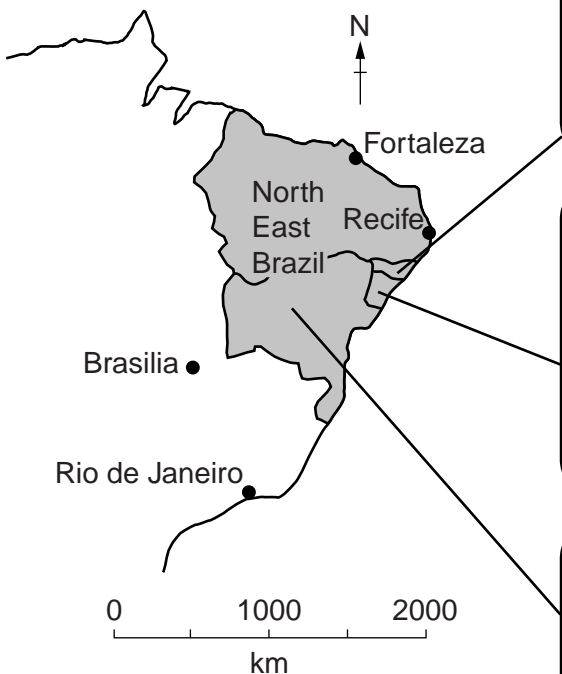
- 5 Figs 8 and 9, and Table 2, give information about North East Brazil which has a growing tourist industry. Study the information and answer the questions on the opposite page.

Table 2

Month	Temperature (°C)	Heat and humidity	Rainfall (mm)
J	27	high	53
F	27	high	84
M	27	high	160
A	26	high	221
M	25	medium	267
J	25	medium	277
J	24	medium	254
A	24	medium	152
S	25	medium	64
O	26	medium	25
N	26	medium	25
D	27	medium	28



Fig. 8



Alagoas

Beauty spots can be found all along the 230km of coastline with dazzling blue seas. In the north, long stretches of coral reef act as barriers to the waves and provide calm warm waters ideal for bathing and other recreational activities. The reefs provide excellent scuba diving.

Sergipe

This small state has 30km of sandy coastline with many market stalls. São Cristovão is the fourth oldest city in Brazil and has a lot of 17th and 18th century architecture. The town of Laranjeiras is considered the birthplace of Afro-Brazilian traditions.

Bahia

The cobbled streets of Salvador, the state capital are lined with palaces and churches and is a UNESCO World Heritage Site. The southern coast has very varied geographical environments including the Mata Atlantica forest. Humpback whales can be seen along the coast.

Fig. 9

(a) Name the two lines of latitude shown on Fig. 8.

0° 23½°S

(b) Table 2 shows the climate of Recife. This has three seasons: (i) *wet*, (ii) *dry*, and (iii) *hot and humid*. Identify the **three** seasons by completing the table below.

Months	Season
January to April	
May to August	
September to December	

[2]

(c) Three of the important tourist states of North East Brazil are Alagoas, Sergipe and Bahia. Advertisements for the three states are shown on Fig. 9. Two types of tourist who wish to visit North East Brazil are:

- people interested in active holidays;
- people interested in culture and the natural environment.

For each type of tourist, using Fig. 9 only, choose a state that they are likely to visit and give **two** reasons for your choice.

People interested in active holidays

State

Reasons

1.....

2.....[2]

People interested in culture and the natural environment

State

Reasons

1.....

2.....[2]

[Total: 8 marks]

6 Fig. 10 is a map showing levels of industrialisation and poverty in countries of North Africa and the Arabian Peninsula.

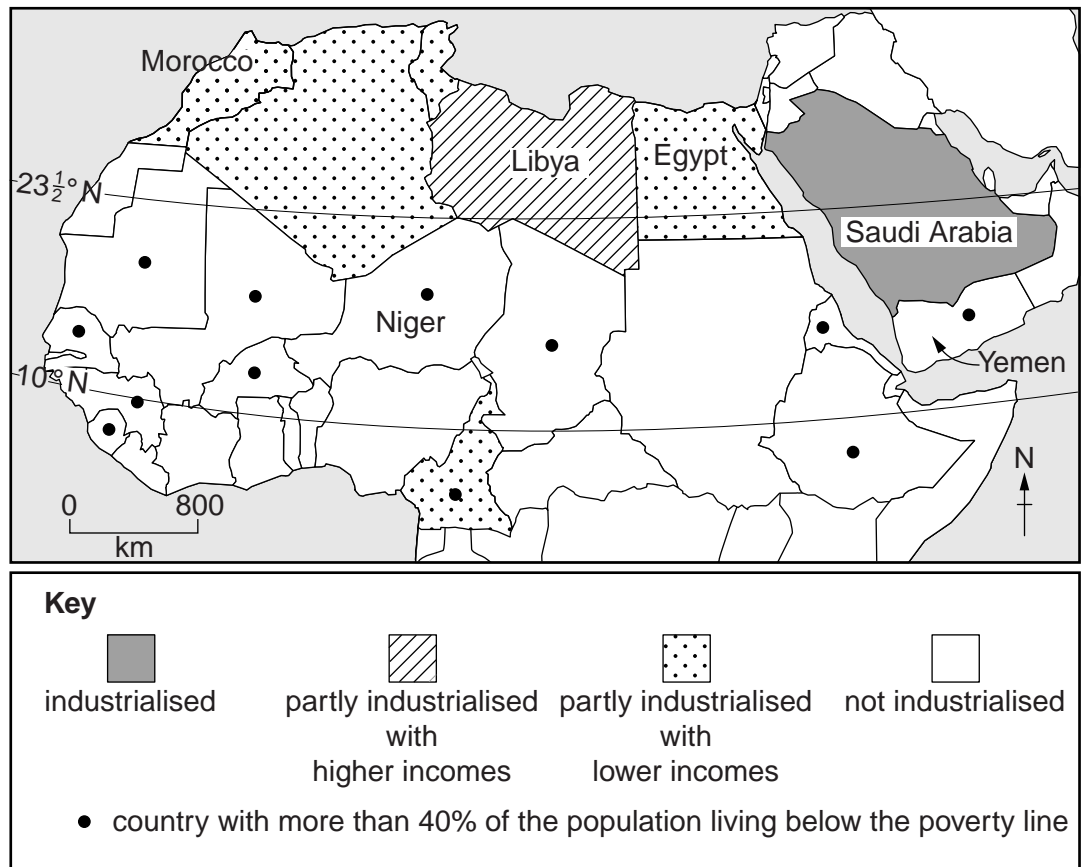


Fig. 10

(a) (i) Describe the distribution of different levels of industrialisation shown on Fig. 10.

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.....

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.....[2]

(ii) How does poverty appear to be linked to industrialisation in the countries shown on Fig. 10?

.....

.....[1]

(b) Fig. 11 shows the employment structure of countries shown on Fig. 10.

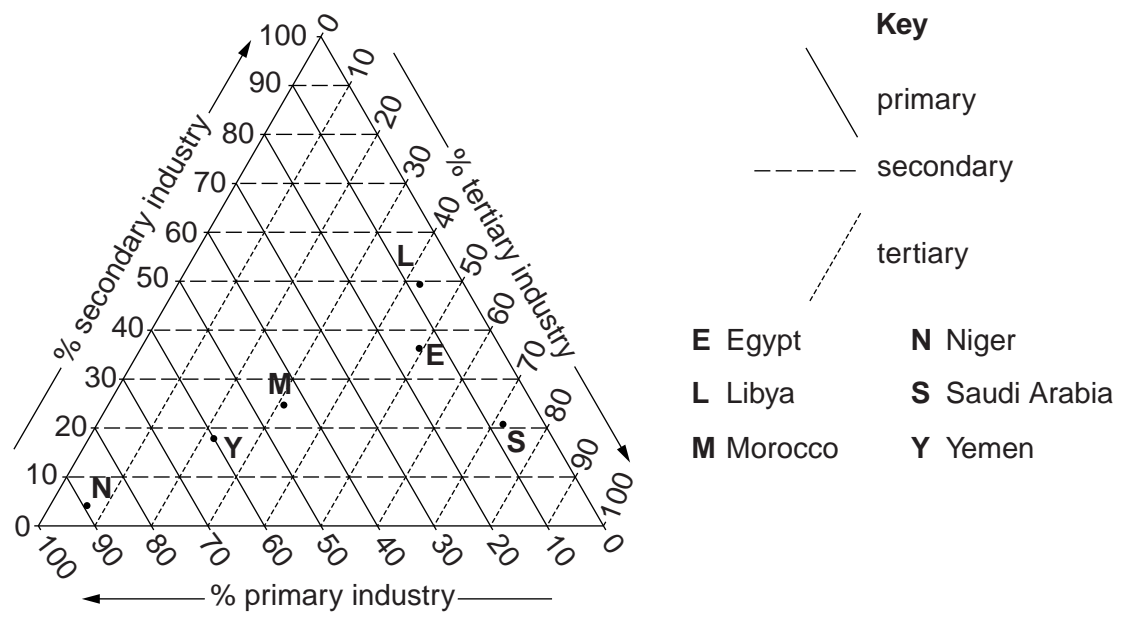


Fig. 11

Using information from Fig. 11, complete the table below.

Country	Employment in primary industry (%)	Employment in secondary industry (%)	Employment in tertiary industry (%)
Egypt			49
Yemen	60		

[2]

(c) Table 3 shows the percentage of the population employed in secondary industry countries which are shown on Fig. 10.

Table 3

Country	Percentage of the workforce employed in secondary industry
Niger	4
Saudi Arabia	21
Morocco	25
Libya	50

As a country becomes more industrialised, employment in the secondary sector increases and then decreases. Using Table 3 and Fig. 10, give evidence for this.

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.....[3]

[Total: 8 marks]

Copyright Acknowledgements:

- Question 2 Fig. 4 © <http://pubs.usgs.gov/of/2004/1043/ofr-2004-1043.pdf>.
- Question 3 Photograph A © D Kelly (c) UCLES.
- Question 3 Photograph B © D Kelly (c) UCLES.

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