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0460/23

May/June 2012

1 hour 30 minutes

Additional Materials: Ruler
Plain paper
Protractor
Calculator

1:25 000 Survey Map Extract is enclosed with this question paper.

READ THESE INSTRUCTIONS FIRST

Write in dark blue or black pen.

Do not use staples, paper clips, highlighters, glue or correction fluid.

DO **NOT** WRITE ON ANY BARCODES.

Answer **all** questions.

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.

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 **15** printed pages, **1** blank page and **1** Insert.

1 The map extract is for Mt. Laselle, Mauritius. The scale is 1:25 000.

(a) Fig. 1 shows the positions of some features in the south of the map extract.

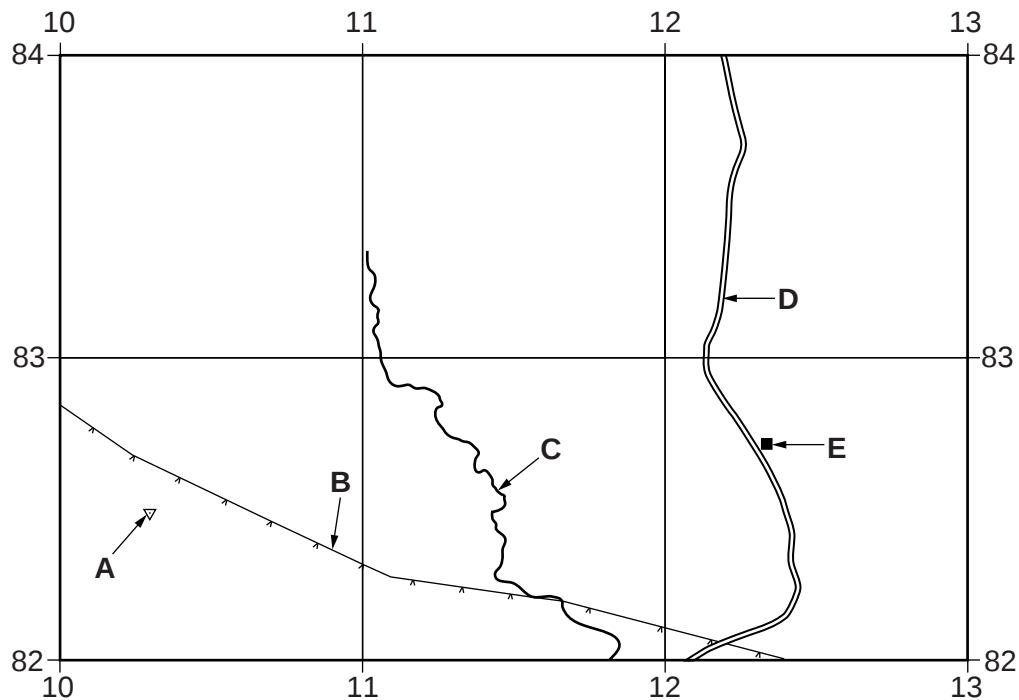


Fig. 1

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

(i) the height at feature **A**;

..... metres [1]

(ii) feature **B**;

..... [1]

(iii) the name of river **C**;

..... [1]

(iv) feature **D**;

..... [1]

(v) feature **E**.

..... [1]

(b) Fig. 2 shows the three types of vegetation in grid square 1085.

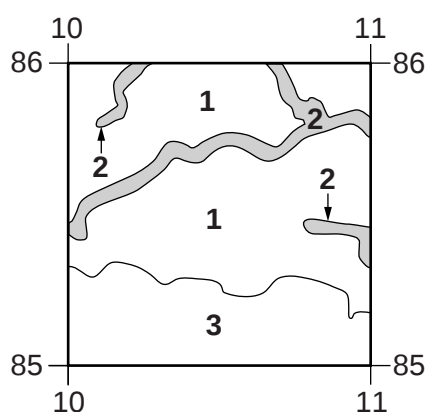


Fig. 2

In the table below, name each type of vegetation and describe the relief of the land on which it is growing.

vegetation type	relief
1	
2	
3	

[6]

-[4

-
- The map displays the EAU BLEUE RESERVOIR, a shaded area with an irregular boundary. The reservoir is located between the horizontal grid lines 83 and 84 and the vertical grid lines 07 and 08. A small black dot, labeled 'power station', is located to the right of the reservoir, near the vertical grid line 09 and the horizontal grid line 83. The map includes a grid with vertical lines labeled 07, 08, 09, and 10, and horizontal lines labeled 82, 83, and 84.

(i) In which direction could the area of the Eau Bleue Reservoir expand greatly after very heavy rain? Circle **one** of the answers below.

[1]

- (ii) Give reasons for your answer to (d)(i).

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.....

.....

.....

.....[2]

- (iii) The power station shown on Fig. 3 produces HEP. State why this is a suitable location for an HEP station.

.....

.....

.....

.....[2]

[Total: 20 marks]

- 2 Fig. 4 (Insert) shows some plate boundaries, and some volcanoes erupting on a day in May 2010.

(a) Using Fig. 4, name:

- (i) a volcano which is not near a plate boundary;

.....[1]

- (ii) the two plates which are responsible for the formation of the volcano Chaiten;

.....[1]

- (iii) a plate with no eruptions during the day shown on the map;

.....[1]

- (iv) two plates with a constructive plate boundary along which an eruption occurred.

.....[1]

(b) Describe the distribution of volcanic eruptions on the African Plate on Fig. 4.

.....

[2]

- (c) (i) A volcano erupting in Iceland prevented aircraft from crossing large parts of Europe for a week in April 2010.

Circle below the type of volcanic hazard which would have caused the problem.

ash carbon dioxide lava bombs lava flows [1]

- (ii) Suggest how it was possible for a volcanic eruption in Iceland (labelled on Fig. 4) to affect mainland Europe.

.....
[1]

[Total: 8 marks]

(a) Describe the features of the river and its valley shown in Photograph A.

[5]

[2]

.....[1]

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- 4 (a) (i) Fig. 6 gives information about emigrants from the Philippines living temporarily in certain countries in December 2008.

Complete the graph to show that 550 000 Filipinos were temporary migrants in the United Arab Emirates (UAE).

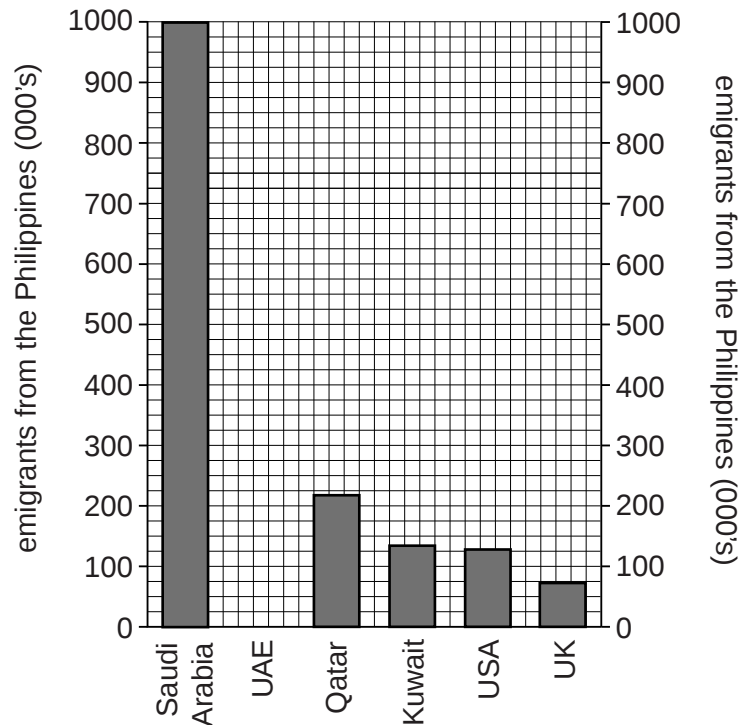


Fig. 6

[1]

- (ii) How many Filipinos were temporary migrants to Qatar in 2008?

.....[1]

- (b) Table 1 gives information, for 2008, about the countries referred to in Fig. 6. Use Table 1 and Fig. 6 to answer the questions which follow.

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Table 1

	Approximate distance from the Philippines (km)	Population (millions)	GDP per person (US\$)	GDP per person rank in the world	Languages (official language in bold)
Philippines	0	98	3300	162nd	Filipino, English
Kuwait*	7600	2.7	54 100	7th	Arabic , English widely spoken
Qatar*	7300	0.8	121 700	2nd	Arabic , English widely spoken
Saudi Arabia*	7800	28.7	20 400	60th	Arabic , English widely spoken
United Arab Emirates (UAE)*	6900	4.8	42 000	17th	Arabic , English widely spoken
United Kingdom (UK)	10 700	61	35 200	34th	English
United States of America (USA)	12 000	307.2	46 400	11th	English

* country in the Middle East

GDP is a measure of the wealth of a country

- (i) What do all these countries have in common to attract migrants from the Philippines? Use only evidence from Table 1.

.....

 [2]

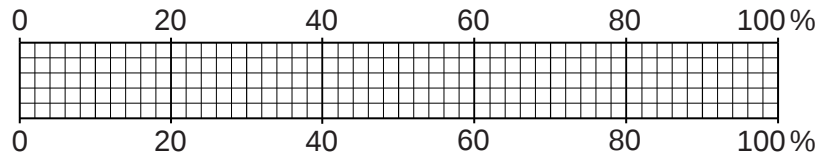
- (ii) Does distance affect the number of migrants from the Philippines to Kuwait and to the USA? Explain your answer.

.....

 [2]

- (c) Complete Fig. 7 to show that, in December 2008, 59% of the total temporary emigrants from the Philippines were to the Middle East. Use the key provided.

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Key

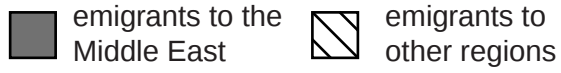


Fig. 7

[2]

[Total: 8 marks]

- 5 (a) Table 2 shows the percentage costs of a high technology company in the UK, an MEDC.

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Table 2

labour, rent and electricity	80%
raw materials	18%
transport	2%

Complete Fig. 8, using the information in Table 2 and the key provided.

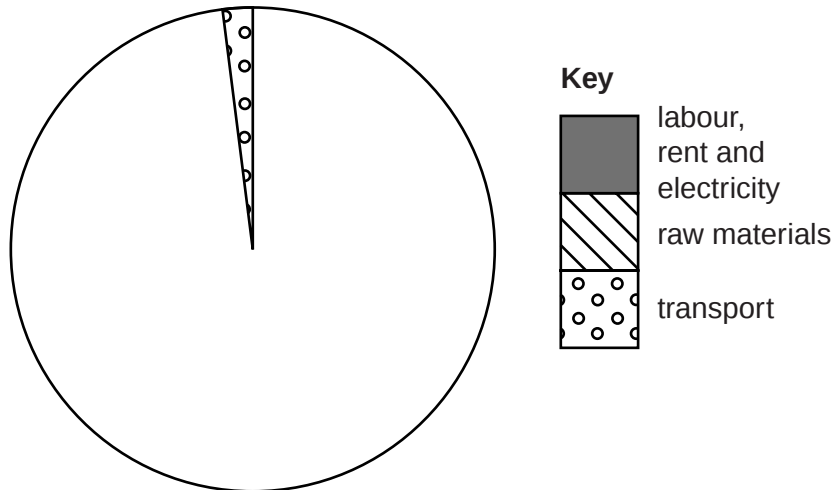


Fig. 8

[2]

- (b) Fig. 9 shows the location of Bangalore, the largest centre of the electronics industry in India, an LEDC. Fig. 10 gives information about the electronics industry in Bangalore. Use Figs 9 and 10 **only** to answer the questions which follow.

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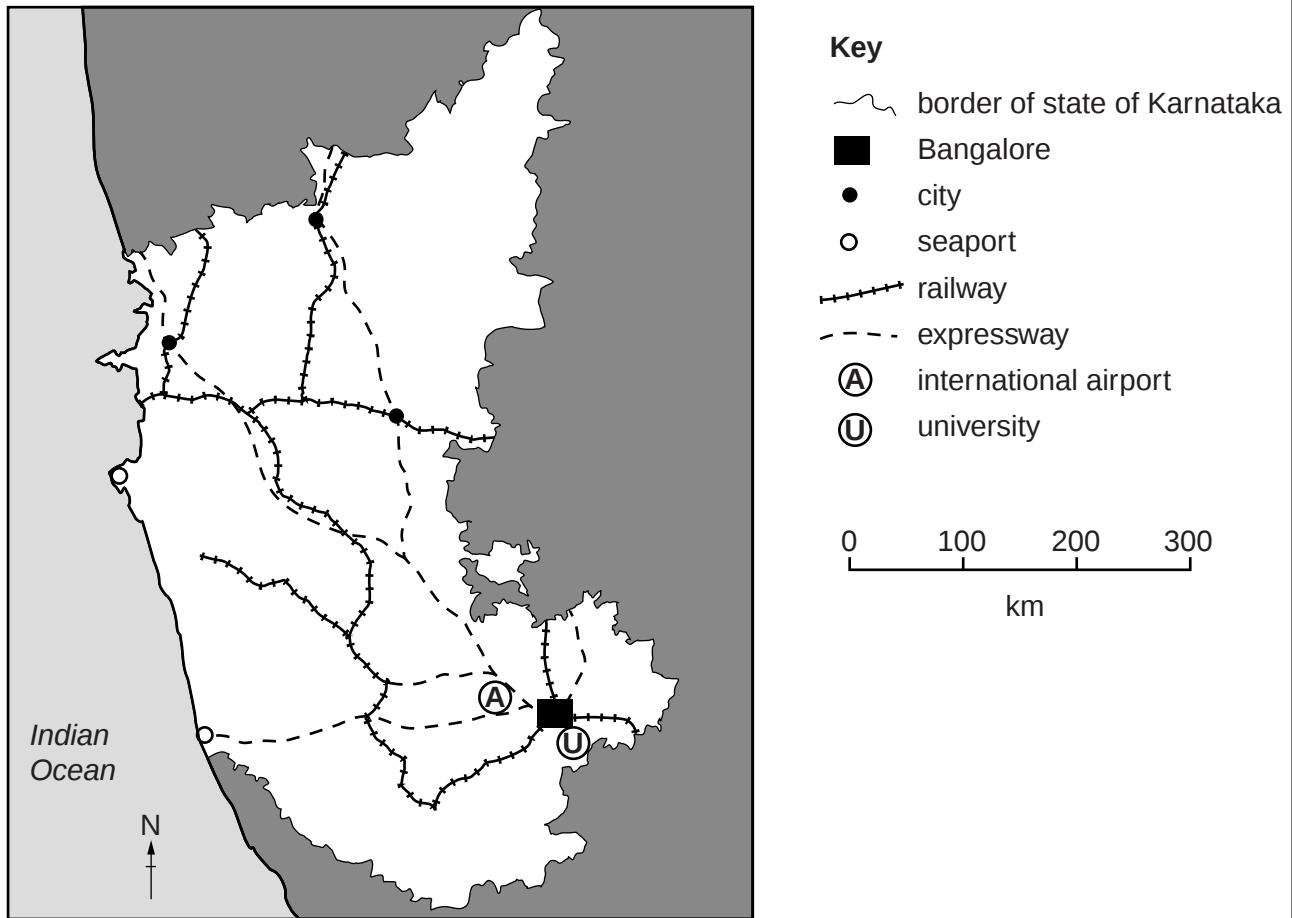


Fig. 9

main inputs	processes	selected outputs
flat land large amounts of capital financial incentives from the Government silicon chips large highly educated and skilled workforce electricity fast transport to market	inventing new products designing complicated machinery to make the products making products by automated machines	televisions computers printers telephones

Fig. 10

- (i) State the advantages shown in Fig. 9 of Bangalore for the manufacture of electronics.

.....

.....

.....

.....

..... [2]

- (ii) Explain why the transport costs of electronics companies are low.

.....

..... [1]

- (iii) Explain why the labour costs of electronics companies are high.

.....

..... [1]

- (c) Singapore is a small island MEDC. Suggest **two** reasons why Singapore set up a Technology Park in Bangalore in an LEDC for some of its electronics companies.

1

.....

2

..... [2]

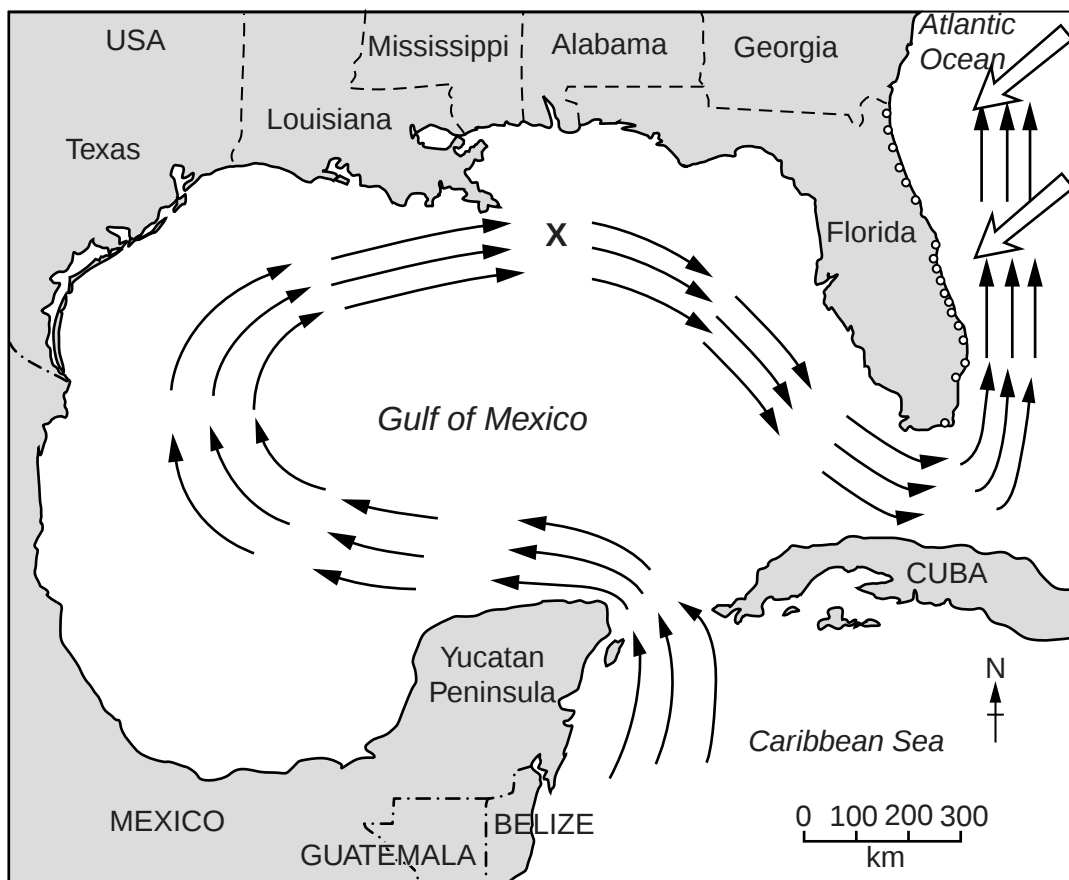
[Total: 8 marks]

- 6 Fig. 11 gives information about an oil leak in the Gulf of Mexico and Fig. 12 is a map of the Gulf of Mexico and adjacent coast. Use Figs 11 and 12 to answer the questions which follow.

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timeline	wind direction
22nd April – An explosion caused an oil rig to sink 1500 metres to the sea floor, causing the well and pipeline on the sea bed to fracture. 29th April – Estimates stated that 5000 barrels of oil were leaking into the sea each day. 30th April – Estimate of the loss rose to 25 000 barrels per day with some estimates being even higher. - May 1st – The surface oil slick was nearly 200 km wide.	occasionally south westerlies but mainly strong south easterlies

Fig. 11



Key

--- international border

---- state border

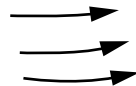
CUBA Country name

Florida state or area name

land

X

source of oil leak at sunken rig



ocean current



prevailing wind direction

o

beach resort

Fig. 12

- (a) Explain why estimates of the amount of oil leaking from the pipeline varied.

.....
 [1]

- (b) (i) Despite attempts to prevent it, oil reached the coast by the end of the first week of May.
 Suggest which named area on Fig. 12 was affected first and give reasons for your answer.

.....

 [3]

- (ii) Explain why some experts warned that the oil could eventually spoil the tourist beaches along the **east** coast of Florida.

.....

 [2]

- (iii) Suggest **two** groups of people who would have **different** reasons for objecting to future drilling for oil in the Gulf of Mexico. Explain why each group would object.

1

 2

 [2]

[Total: 8 marks]

Copyright Acknowledgements:

Question 3 Photograph A	© Muriel Fretwell © UCLES
Question 4 Table 1	© <i>CIA Worldfactbook</i> ; www.cia.gov .
Question 4 Fig. 6	www.cfo.gov/ph .

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