

CANDIDATE
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GEOGRAPHY

0460/23

Paper 2

October/November 2016

1 hour 30 minutes

Candidates answer on the Question Paper.

Additional Materials: Ruler
 Protractor
 Plain paper
 Calculator

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 an HB pencil for any diagrams or graphs.

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

DO NOT WRITE IN ANY BARCODES.

Write your answer to each question in the space provided.

If additional space is required, you should use the lined pages at the end of this booklet. The question number(s) must be clearly shown.

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.

The syllabus is approved for use in England, Wales and Northern Ireland as a Cambridge International Level 1/Level 2 Certificate.

This document consists of **15** printed pages, **1** blank page and **1** Insert.

1 Study the map extract for Ashbourne, United Kingdom. The scale is 1:50 000.

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

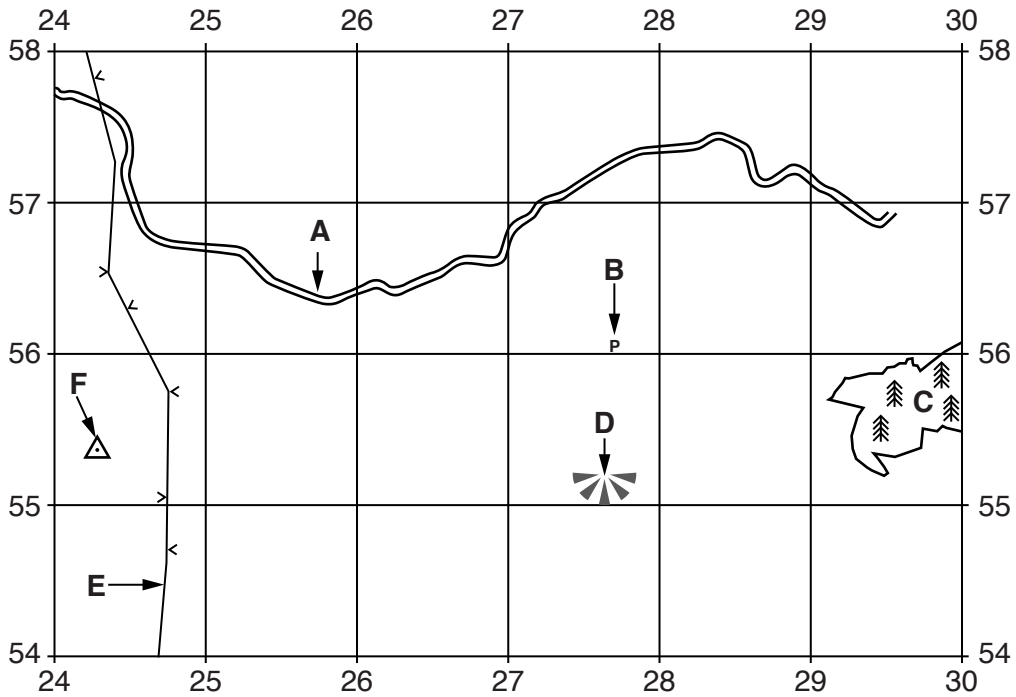


Fig. 1

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

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

(b) (i) State **four** pieces of map evidence that Carsington Water is a tourist attraction and recreational centre.

- 1
- 2
- 3
- 4 [2]

(ii) State the evidence that Carsington Water is **not** a natural lake.

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

(c) (i) Give the six-figure grid reference of the railway station at Idridgehay in the south east of the map.

..... [1]

(ii) Measure the distance northwards along the railway from the railway station at Idridgehay to the next railway station at Wirksworth. Give your answer in metres.

..... metres [1]

(iii) State the bearing **from** the railway station at Wirksworth **to** the railway station at Idridgehay.

..... degrees [1]

(iv) Name the feature just north of Idridgehay station used to keep the railway as level as possible.

..... [1]

(d) Describe the relief of the land in grid square 1647.

.....
.....
.....
..... [2]

(e) (i) Ashbourne extends north from the A52 road in the south west of the map extract.

Which **two** of the following statements correctly explain the shape of Ashbourne?

Statement	Tick (✓)
in the east it avoids the valley of the Henmore Brook	
it has grown along A and B roads	
its growth has left no open space in the built-up area	
its growth is mainly to the west of the A515 road	
its growth to the east has been prevented by woodland	
no part of the town was built on the valley floor of the Henmore Brook	

[2]

(ii) Suggest why the new road on the southern edge of the town (from the roundabout at 192452 to the roundabout at 173457) was built.

.....
[1]

(f) Look at the area shown in Fig. 2.

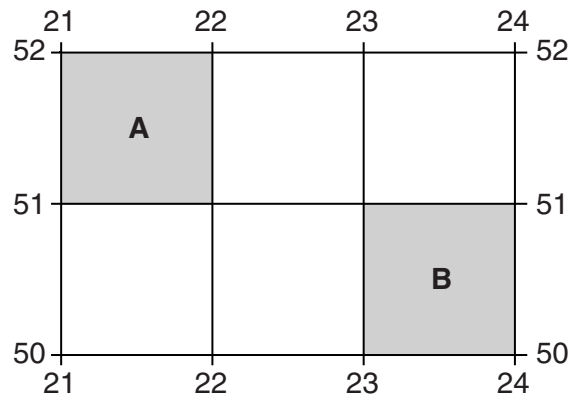


Fig. 2

Compare the settlement patterns in areas **A** and **B** shown in Fig. 2.

.....

[2]

[Total: 20 marks]

2 Table 1 shows the age structure of six countries. Use Table 1 to answer the questions that follow.

Table 1

Age group	Percentage of population					
	Country A	Country B	Country C	Country D	Country E	Country F
65 and over	18.3	4.1	5.5	13.2	3.1	17.3
15–64	63.0	59.1	61.6	70.3	69.3	67.6
0–14	18.7	36.8	32.9	16.5	27.6	15.1

(a) State:

(i) the country with the highest percentage of children aged 0–14;
 [1]

(ii) the country with the highest percentage of population of working age;
 [1]

(iii) the percentage of the population of country C that is dependent;
 % [1]

(iv) the country with the highest percentage of dependent population.
 [1]

(b) State the **two** countries that have a population structure most typical of a developed country and give **two** reasons for your answer.

1 2

Reason 1

Reason 2
 [3]

(c) Name the type of diagram that can also be used to show the age structure of a single country.
 [1]

[Total: 8 marks]

3 Photograph A (Insert) shows a wave approaching the shore.

(a) Describe the wave shown in Photograph A.

.....
.....
.....
.....[2]

(b) (i) Photograph B (Insert) shows a coastline and Fig. 3 is a field sketch of the coastline shown in Photograph B.

Label clearly on Fig. 3 **one** example of the following:

arch, beach, cave, cliff, wave-cut platform

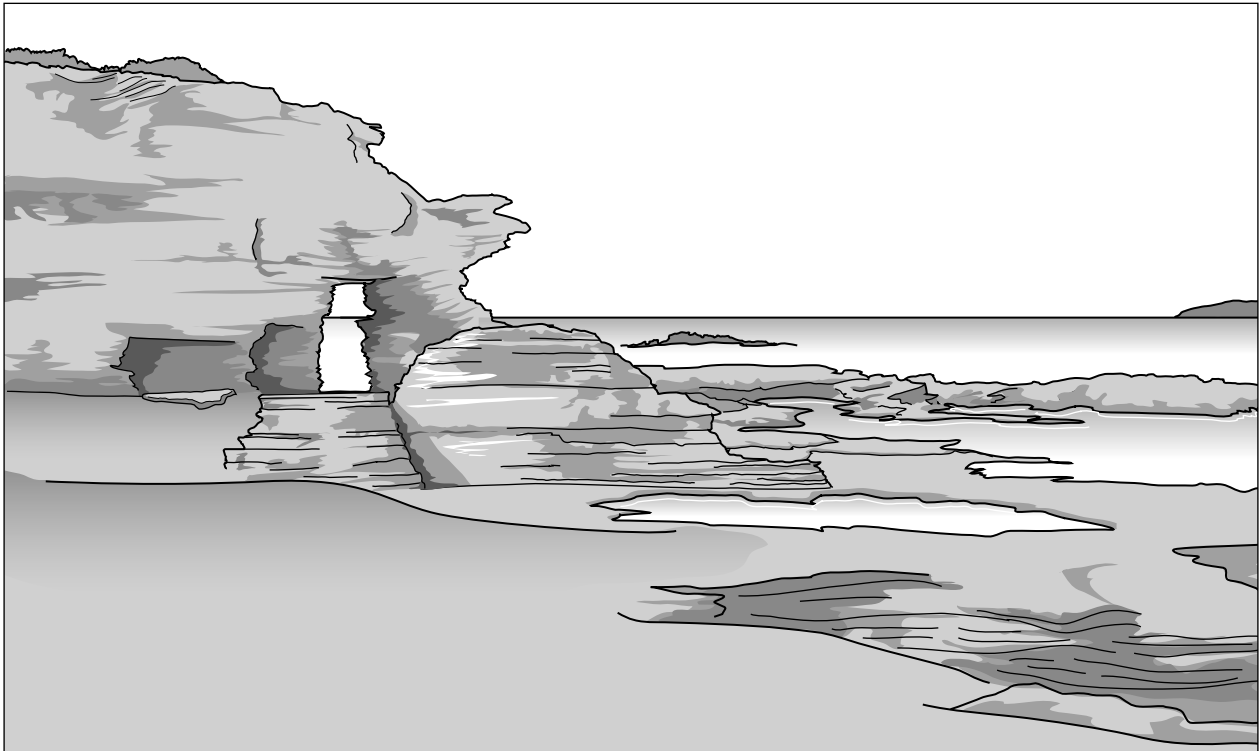


Fig. 3

[5]

(ii) Using evidence from Photograph B, explain why the rock type in the area is easily eroded.

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

[Total: 8 marks]

TURN PAGE FOR QUESTION 4

- 4 (a) Figs. 4 and 5 show river levels (average height of water above the river bed) measured at two sites over a period of 28 days. Fig. 4 is for tributary X and Fig. 5 is for the main river it joins, river Y. River Y has many tributaries.

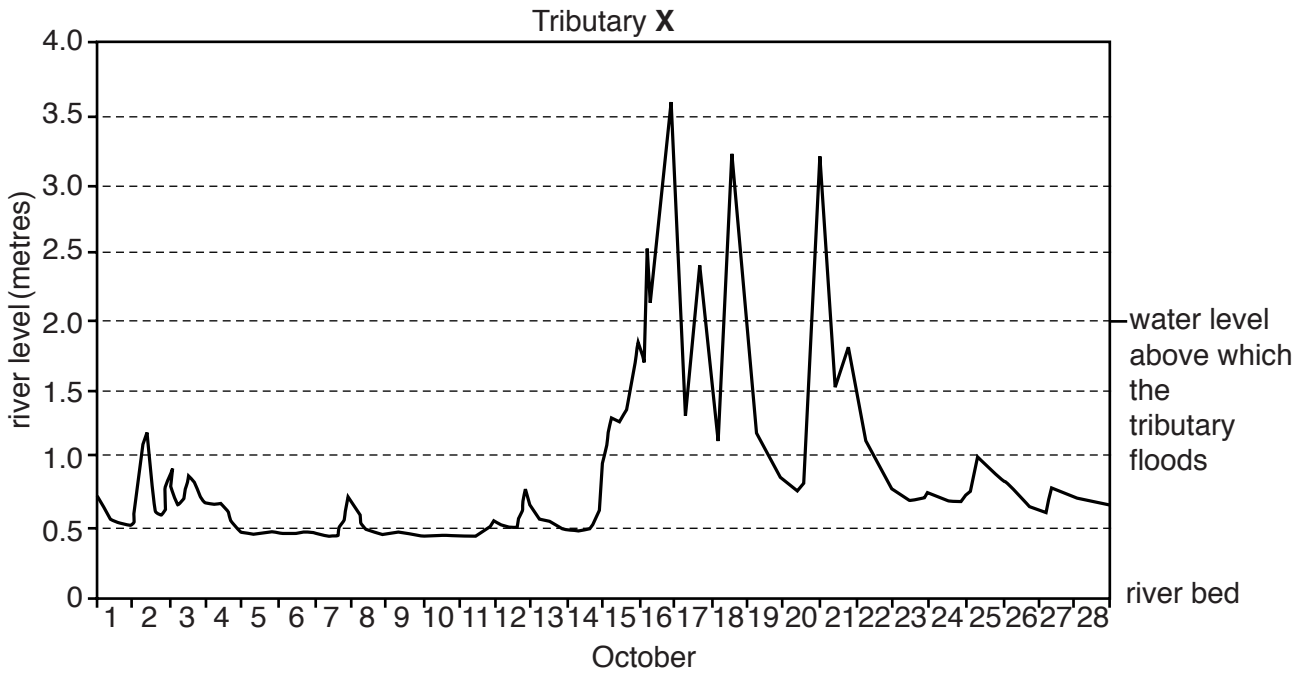


Fig. 4

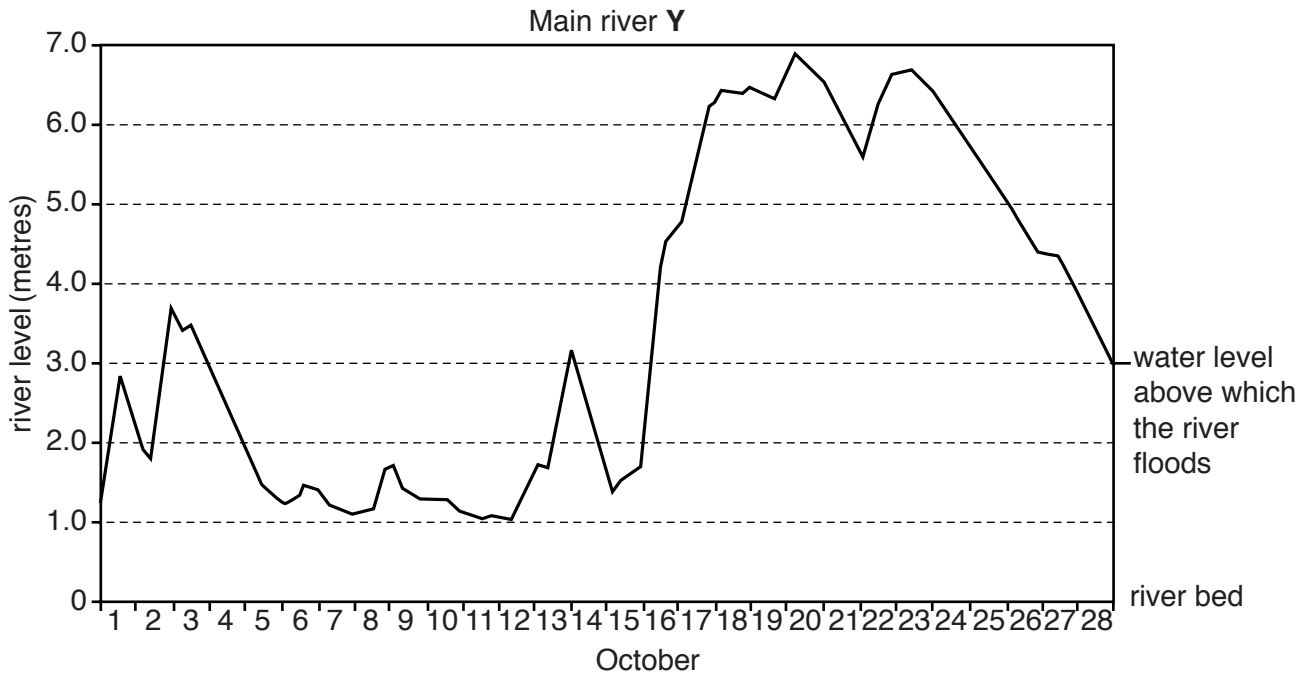


Fig. 5

- (i) Tributary **X** floods when its level is greater than two metres and river **Y** floods when its level is greater than three metres.

Complete the table to show differences in the flood events on the two rivers during the period shown.

	Tributary X	Main river Y
level of river at peak (highest) flow (metres)	6.9
date in October of the peak (highest) flow	20
number of flood events	4
number of days of the longest flood event	1

[4]

- (ii) Explain why tributary **X** flooded at a lower level than the main river **Y**.

.....
[1]

- (iii) Explain why a main river usually has more serious flooding than its tributaries.

.....

[2]

- (b) Use Fig. 4 to suggest the normal level (base flow) of tributary **X**.

.....metres [1]

[Total: 8 marks]

- 5 (a) Figs. 6A and 6B show the tonnage (total weight) of ships built by the top five shipbuilding countries in 1968 and 2013.

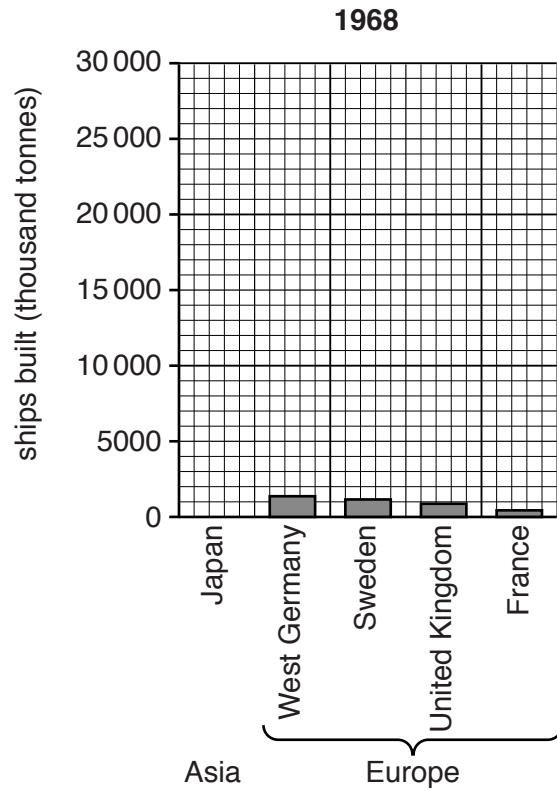


Fig. 6A

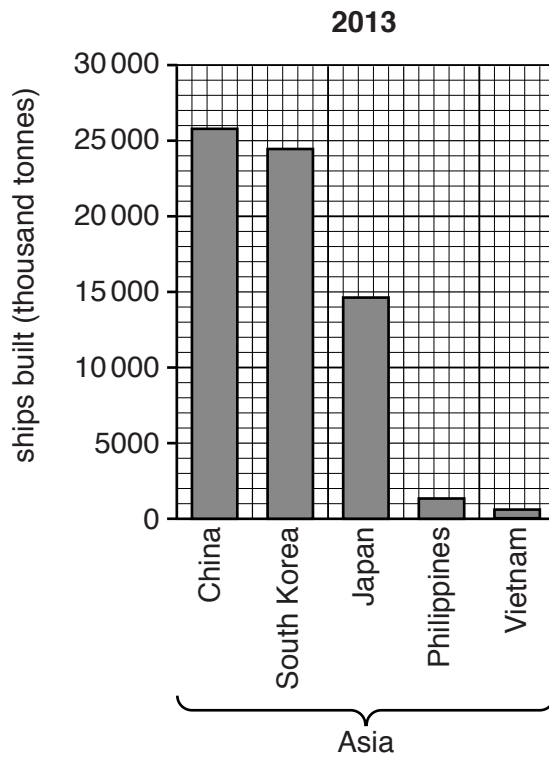


Fig. 6B

- (i) Complete Fig. 6A to show that Japan built 6800 thousand tonnes of ships in 1968. [1]
- (ii) Describe how the location of the top five shipbuilding countries changed between 1968 and 2013. Refer to continents in your answer.

.....

.....

.....

.....[2]

- (iii) Suggest reasons for the change in the location of the top five shipbuilding countries.

.....

.....

.....

.....[2]

- (b) Suggest why the tonnage (total weight) of ships built has increased since 1968.

.....

.....

.....

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.....

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.....[3]

[Total: 8 marks]

- 6 (a) The Human Development Index (HDI) has five categories. Figs 7A and 7B show variations in the HDI within Brazil in 1991 and 2010.

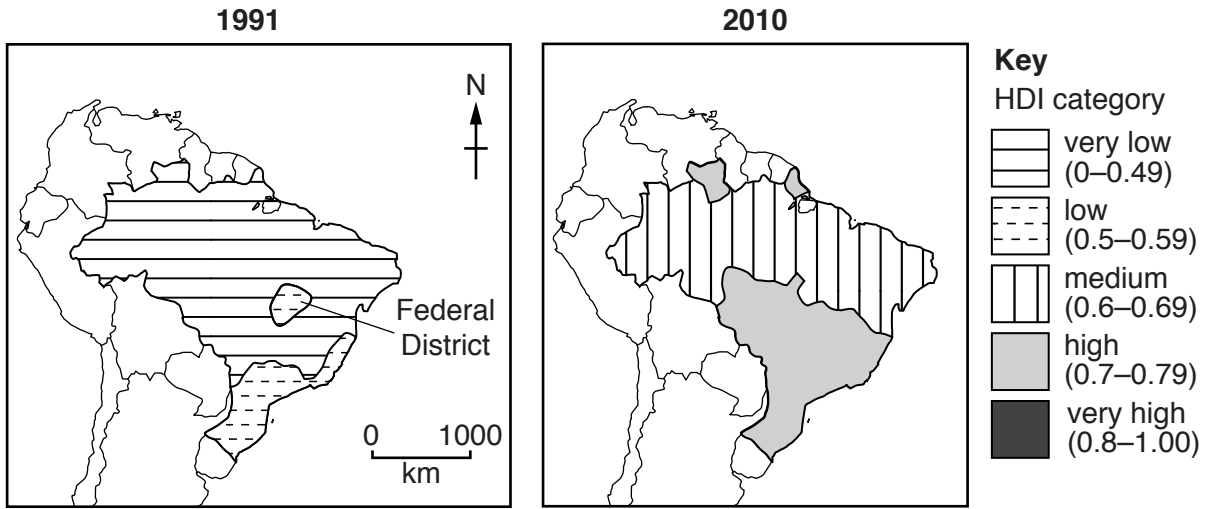


Fig. 7A

Fig. 7B

- (i) Using Fig. 7A, describe the variations in the HDI within Brazil in 1991.

.....
.....
.....
.....[2]

- (ii) Using Figs. 7A and 7B, describe changes in the HDI in different parts of Brazil since 1991.

.....
.....
.....
.....
.....[3]

- (b) Table 2 gives information about the average development indices for education, income and life expectancy for Brazil.

Table 2

	Education		Income		Life expectancy	
	1991	2010	1991	2010	1991	2010
average development index for Brazil	0.28	0.64	0.65	0.74	0.49	0.73

- (i) In the space below, rank the average development indices for education, income and life expectancy for Brazil by the amount of improvement in them between 1991 and 2010.

greatest

.....

smallest

[1]

- (ii) Suggest why changes in income and education are related.

.....

.....

.....

.....[2]

[Total: 8 marks]

Additional Pages

If you use the following lined pages to complete the answer(s) to any question(s), the question number(s) must be clearly shown.

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