ST EDWARD'S
OXFORD

16+ ENTRANCE EXAMINATION

For entry in
September 2015

Geography

Time: 1 hour

Candidates Name: .....

Instructions to Candidates

- The paper is arranged in **4 sections, A, B, C and D**
- **Answer one question from each section.**
- Section A, B and C are out of **15 marks**, section D is out of **9**.
    - **Section A – The Natural Environment** – Rivers, Coasts, Hazards
    - **Section B – People and their Environment** – Economic Activity, Rural, Urban
    - **Section C – Global Issues** – Fragile Environments, Globalisation, Development
    - **Section D – Long answer responses** – choice of 9
- Answer all questions in the spaces provided.

The following abbreviations are used: LIC – Low Income Country, MIC – Middle Income Country, HIC – High Income Country, NIC – Newly Industrialised Country, CBD – Central Business District

SECTION A – THE NATURAL ENVIRONMENT AND PEOPLE

Indicate which question you are answering by marking a cross in the box ☒. If you change your mind, put a line through the box ☒ and then indicate your new question with a cross ☒.

Some questions must be answered with a cross in a box ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.

If you answer Question 1 put a cross in the box ☐ .

1 River environments

(a) Study Figure 1a, which shows the use of water in two HICs, two MICs and two LICs.

Country	Domestic use of water per person (litres per day)	Industrial use of water (litres per person per day)	Level of economic development
USA	575	7790	HIC
France	287	4890	
Brazil	187	5550	MIC
India	135	2980	
Cambodia	15	2950	LIC
Mozambique	4	3070	

Figure 1a

(i) At what level of economic development is domestic use of water per person the highest?

Put a cross in the correct box.

(1)

☐ **A** HIC

☐ **B** MIC

☐ **C** LIC

(ii) Give **one** domestic use of water.

(1)

.....

(iii) Give **three** reasons why the global use of water is rising.

(3)

1 .....

.....

2 .....

.....

3 .....

.....

(b) Study Figure 1b, which shows a V-shaped river valley in an upland area.

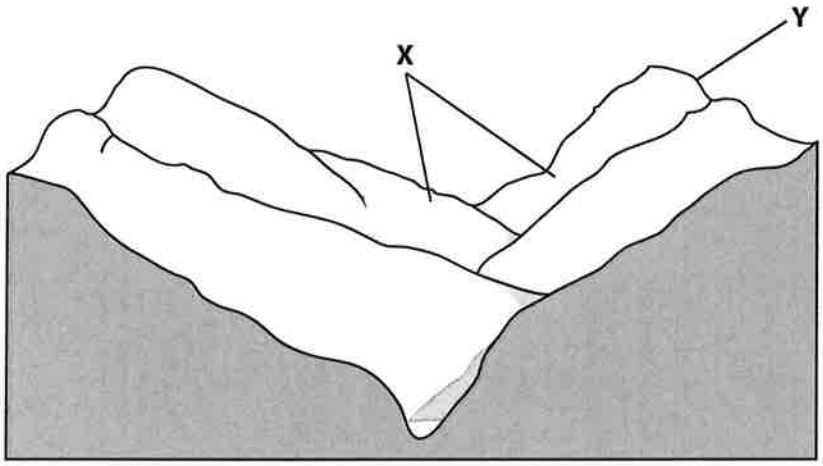


Figure 1b

(i) Identify features:

(2)

X .....

Y .....

(ii) Explain the formation of a V-shaped valley in an upland area.

Annotated diagrams may help your answer.

(4)

(iii) Draw a labelled diagram to show the features of a waterfall.

(4)

If you answer Question 2 put a cross in the box ☐ .

2 Coastal environments

(a) Study Figure 2a, which shows the costs of defending a stretch of coastline using five different methods.

Coastal defence method	Cost per kilometre
concrete sea wall	£6 million
offshore rock breakwater	£5 million
rock revetment (gabions)	£4.5 million
beach nourishment (recharge)	£3.5 million
groynes (100 metres apart)	£0.5 million

Figure 2a

(i) What advantage does Figure 2a suggest groynes have over the other methods of defending the coastline?

(1)

.....

(ii) Give an example from Figure 2a of a method of:

(2)

1. soft defence

.....

2. hard defence

.....

(iii) Give **two** reasons why managed retreat is increasingly used in coastal areas.

(2)

1 .....

.....

2 .....

.....

(b) Study Figure 2b, which shows a coastal area, some of which has been developed.

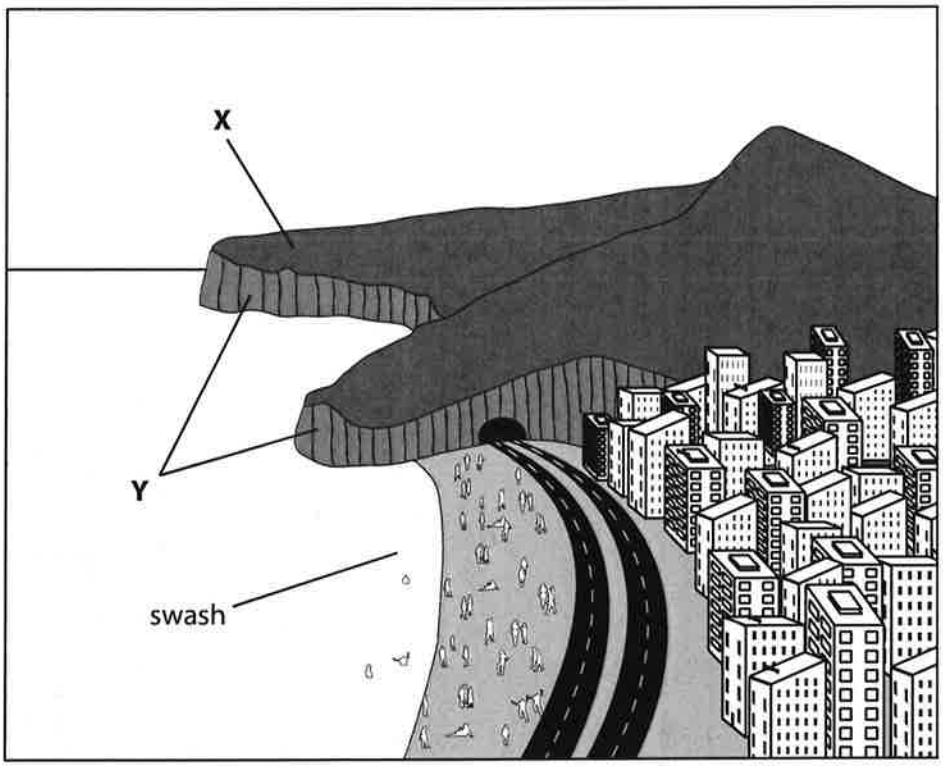


Figure 2b

(i) Identify features:

(2)

X .....

Y .....

(ii) Explain why cliffs are found along some coastlines.

Annotated diagrams may help your answer.

(4)

(iii) Suggest **two** conflicts which might occur between developers and conservationists in coastal areas such as the one shown in Figure 2b.

(4)

1 .....

2 .....

If you answer Question 3 put a cross in the box ☐ .

3 Hazardous environments

(a) Study Figure 3a, which gives information about two earthquakes that affected the city of Christchurch, New Zealand.

Date	Time of earthquake event	Magnitude	Depth of focus (km)	Distance of city from epicentre (km)	Short-term impacts
4 September 2010	04.35 am	7.1	10	40	• 0 deaths. • Buildings weakened; some old, smaller ones collapsed. • No water and electricity for 2–3 days.
22 February 2011	12.51 pm	6.3	5	10	• 185 deaths. • Much of the city centre destroyed. • No water and electricity for 7 days. • Many suburban residents evacuated.

Figure 3a

(i) What term describes the place on the earth's surface directly above where the earthquakes started?

Put a cross in the correct box.

(1)

☐ **A** epicentre

☐ **B** focus

☐ **C** magnitude

(ii) How might the number of deaths have been affected by the time of the earthquake events?

(1)

.....

.....

(iii) Give **three** reasons, other than time of event, why the 2011 earthquake in Christchurch was more destructive than the 2010 earthquake.

(3)

1 .....

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2 .....

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3 .....

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(b) Study Figure 3b, which is an annotated photograph of Christchurch Cathedral and part of the CBD after the 2011 earthquake.

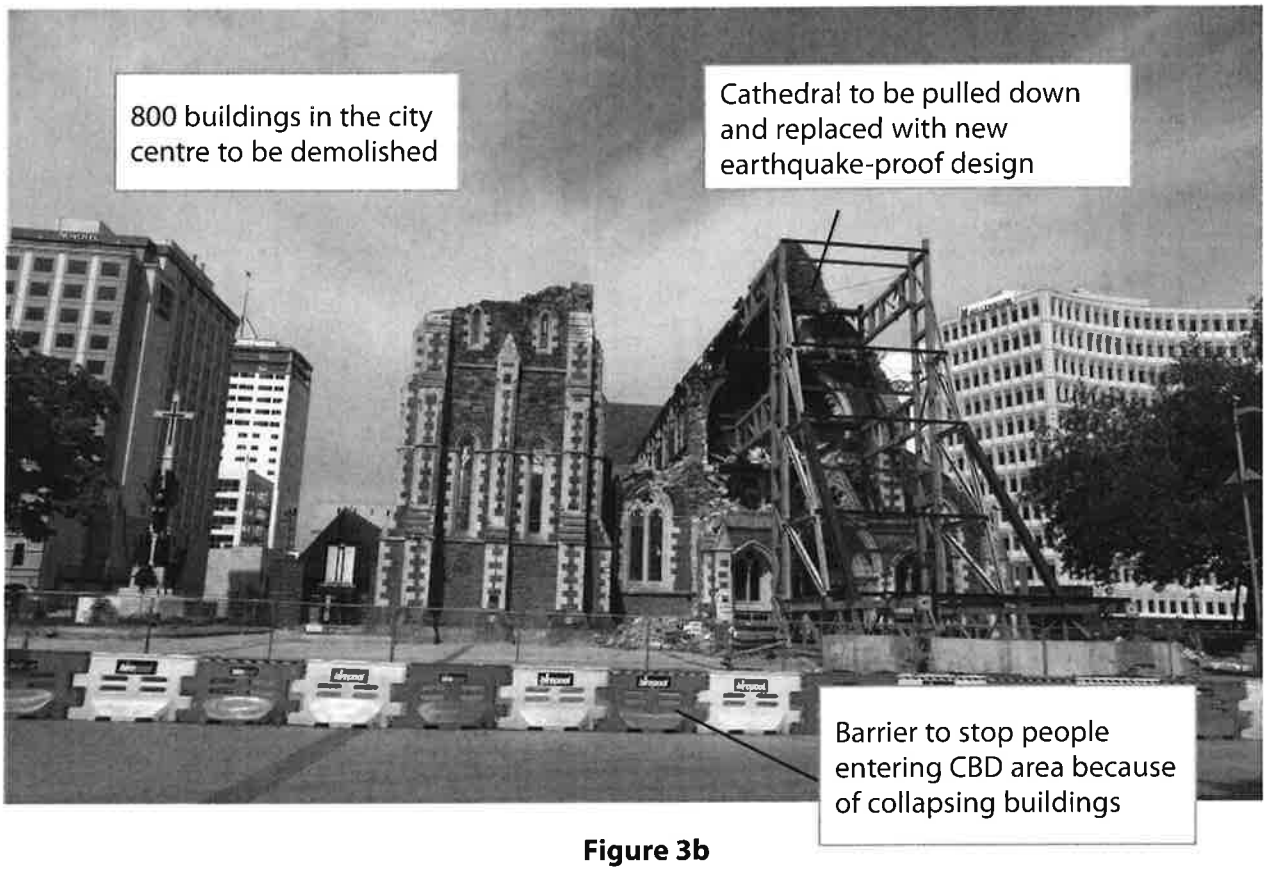


Figure 3b

The local Earthquake Recovery Authority (ERA) is responsible for a 10-year, $30 billion demolition and re-building plan for the city. It will involve constructing buildings to new, higher standards and in safer areas in this hazardous region.

(i) Suggest what the ERA could include in their new, higher building standards for the redevelopment of Christchurch.

(4)

(ii) Give **two** actions, other than setting new, higher building standards, that can be taken to minimise the impact of a future earthquake.

(2)

1 .....

2 .....

(iii) Outline the **long-term** impacts of a hazard event such as the Christchurch earthquakes.

(4)

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SECTION B – PEOPLE AND THEIR ENVIRONMENTS

If you answer Question 4 put a cross in the box ☐ .

4 Economic activity and energy

(a) Study Figure 4a, which shows the production and sales of cars and vans in three regions in 2001 and 2011.

Region	2001		2011	
	Production (in thousands)	Sales (in thousands)	Production (in thousands)	Sales (in thousands)
Asia-Pacific	16 800	12 410	32 350	25 320
Western Europe	16 800	16 650	16 360	16 940
Middle East/Africa	770	840	2050	3370

Figure 4a

(i) Which region's car and van industry has shown little change between 2001 and 2011?

(1)

.....

(ii) In which **two** regions did **production** increase between 2001 and 2011?

(2)

1 .....

2 .....

(iii) Which economic sector does car and van **production** belong to?

Put a cross in the correct box.

(1)

☐ **A** primary

☐ **B** secondary

☐ **C** quaternary

(iv) Name another economic sector **not** listed in (a)(iii).

(1)

.....

(b) Study Figure 4b, which shows the location of the Toyota UK car production factory.

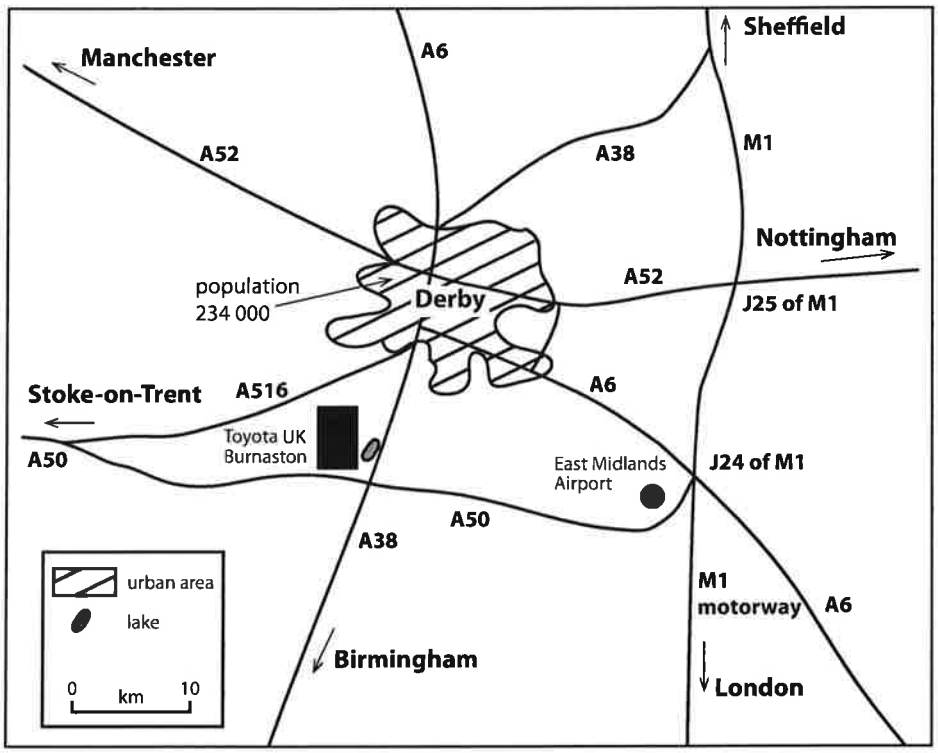


Figure 4b

(i) Suggest why Toyota UK chose this location for its car production factory.

(6)

(ii) What is meant by the term **high-tech industry**?

(2)

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(c) A fieldwork investigation surveyed the views of people living near a proposed nuclear power station.

Study Figure 4c, which shows the proposed location of the nuclear power station and Figure 4d, which shows the results of the fieldwork investigation.

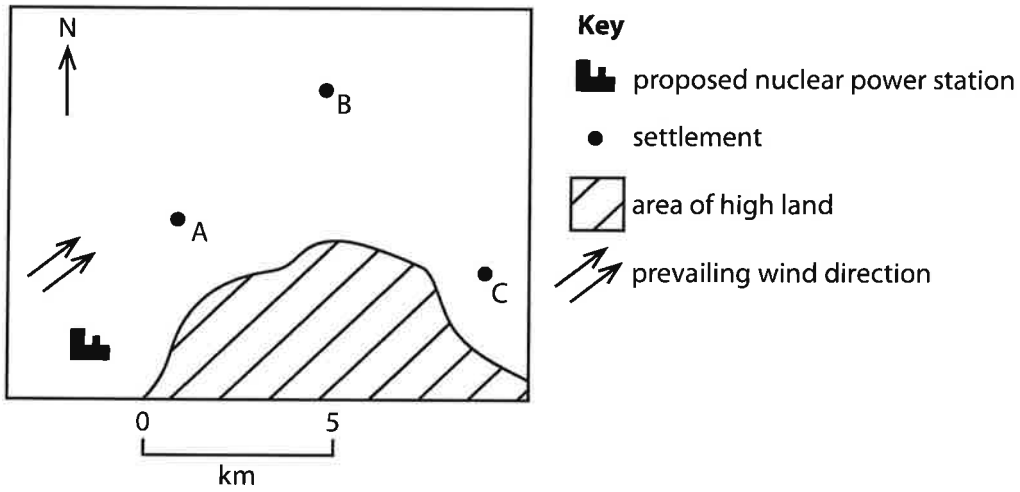


Figure 4c

Settlement	A	B	C
Number of people in favour of building the power station	10	20	45
Number of people opposed to building the power station	40	30	5
Total number of people who took part in the survey	50	50	50

Figure 4d

(i) Using the data from Figure 4d, complete the bar graphs for settlements B and C in Figure 4e.

(2)

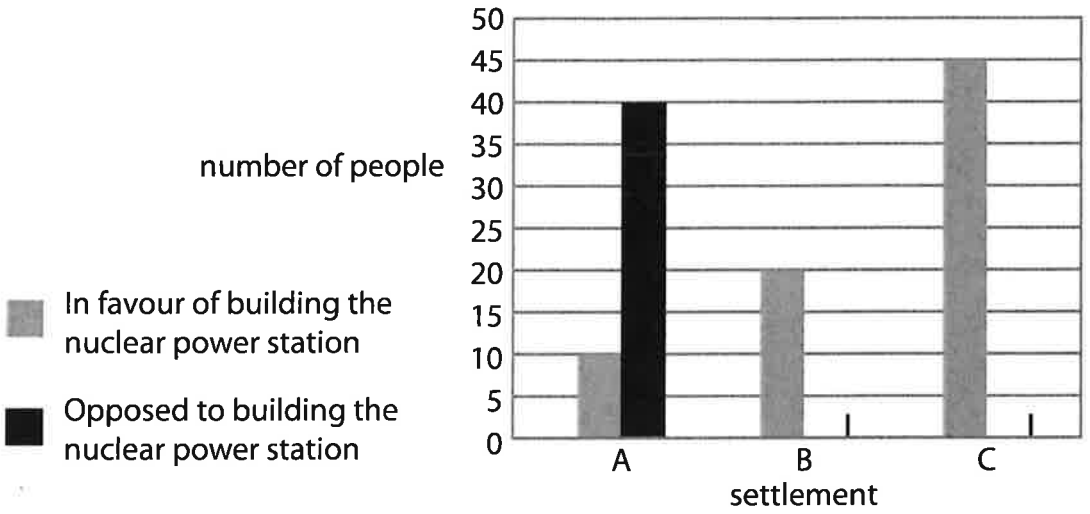


Figure 4e

If you answer Question 5 put a cross in the box ☐ .

5 Ecosystems and rural environments

(a) Study Figure 5a, which shows a rural area in the UK.

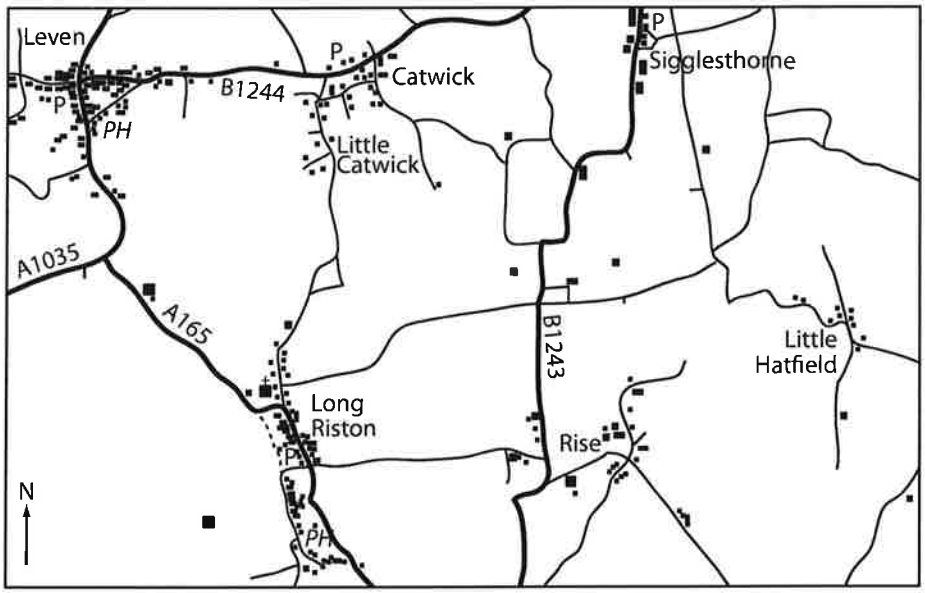


Figure 5a

(i) Use information from Figure 5a to complete Figure 5b below.

(2)

Service \ Population size	Village: Long Riston	Leven	Catwick	Little Hatfield
	470	360	200	80
Church		0	0	0
Post Office	1		1	0
Public House	1	1	0	0

Figure 5b

(ii) State the relationship between population size and the number of services in a village.

(1)

.....

.....

(iii) Give **two** characteristics of rural environments other than population and service provision.

(2)

1 .....

2 .....

(b) Study Figure 5c, which is a newspaper extract on global food shortages.

Global food shortages loom

Global food prices have been rising because of:

- extreme weather resulting in poor harvests,
- biofuels being grown instead of food crops,
- growing demand for food in emerging economies, particularly India and China.

Figure 5c

(i) Suggest why LICs are likely to suffer most from global food shortages.

(4)

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(ii) Outline **two** attempts to increase agricultural production.

(4)

1 .....

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2 .....

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(c) A piece of fieldwork investigated the changes on a farm in the UK between 1980 and 2010.

Study Figure 5d, which shows the farm in 1980 and in 2010.

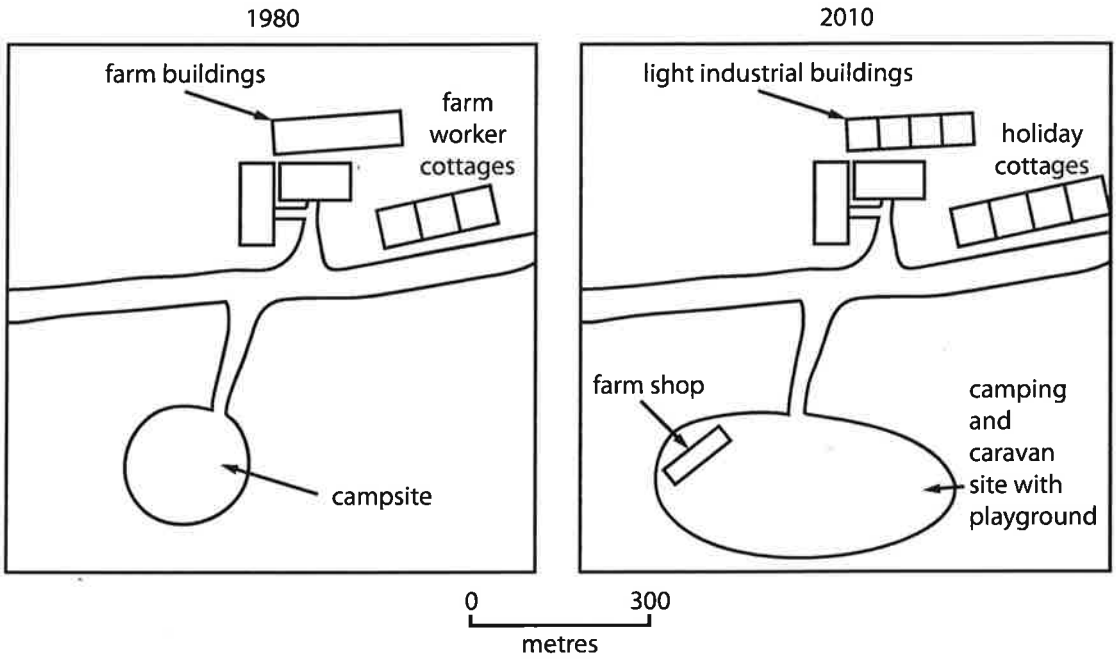


Figure 5d

(i) Study Figure 5e, which shows the farm's sources of income in 1980 and a blank pie chart for 2010.

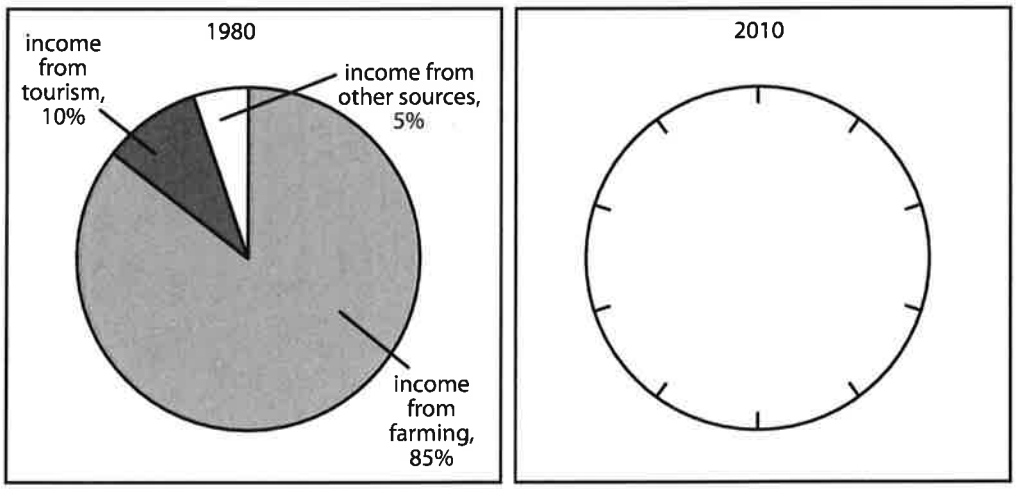


Figure 5e

Draw the pie chart for 2010 in Figure 5e, using the following data for that year:

Income from farming	50%
Income from tourism	40%
Income from other sources	10%

(2)

If you answer Question 6 put a cross in the box ☐ .

6 Urban environments

(a) Study Figure 6a, which shows the percentages of the world's population living in urban and rural areas of HICs and LICs in 1960 and 2010.

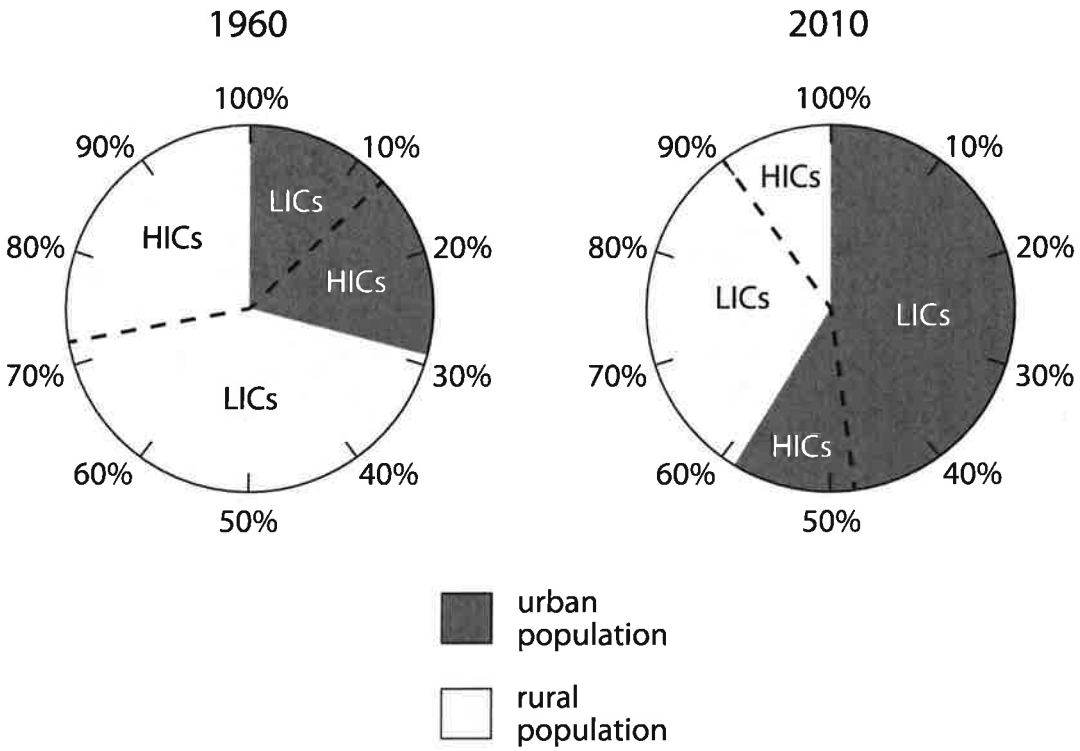


Figure 6a

(i) What percentage of the world's population lived in urban areas in 2010?

(1)

.....

(ii) What term is used to describe a growing proportion of a population living in towns and cities?

Put a cross in the correct box.

(1)

☐ **A** counter-urbanisation

☐ **B** mega-cities

☐ **C** urbanisation

(iii) What percentage of the LIC population lived in urban areas in 1960?

(1)

.....

(iv) Compare how the percentages of urban population in LICs and HICs changed between 1960 and 2010.

(2)

(b) Study Figure 6b, which shows an area of a shanty town in Cape Town, South Africa.



Figure 6b

(i) Explain why shanty towns are an important feature of urban growth in many LICs.

(4)

(ii) Describe the changes occurring in some shanty towns, such as the one shown in Figure 6b, which can improve conditions for residents.

(4)

(c) Study Figure 6c, which shows the results of a fieldwork investigation into the changes in land use, environmental quality (EQ) and building height along an urban transect.

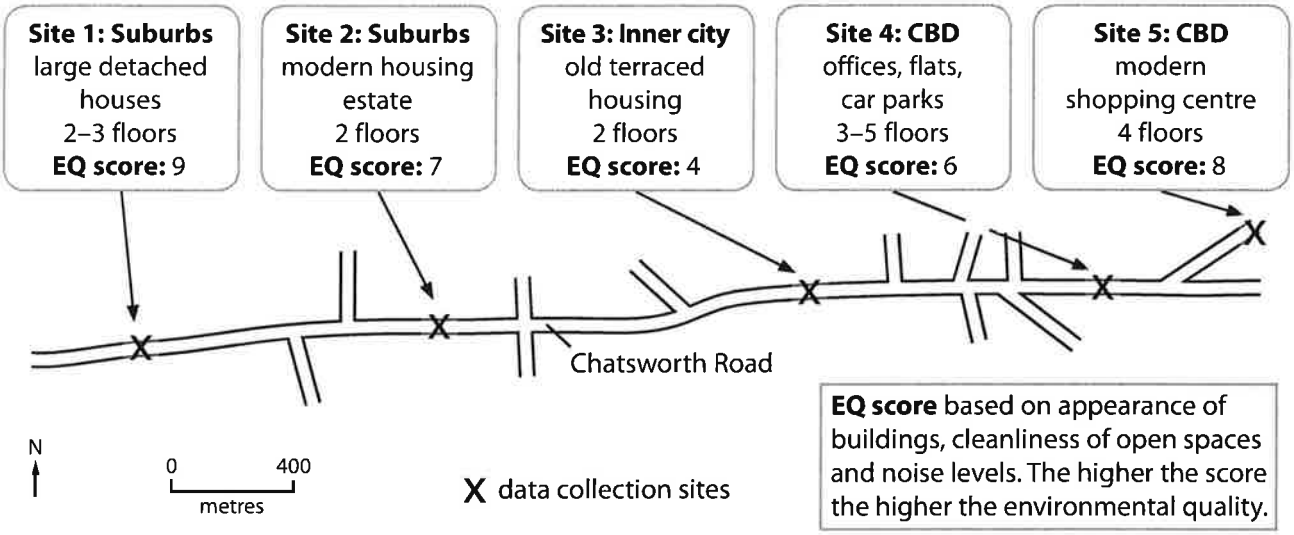


Figure 6c

(i) Complete the environmental quality score for sites 4 and 5 (Figure 6c) on the scattergraph (Figure 6d).

(2)

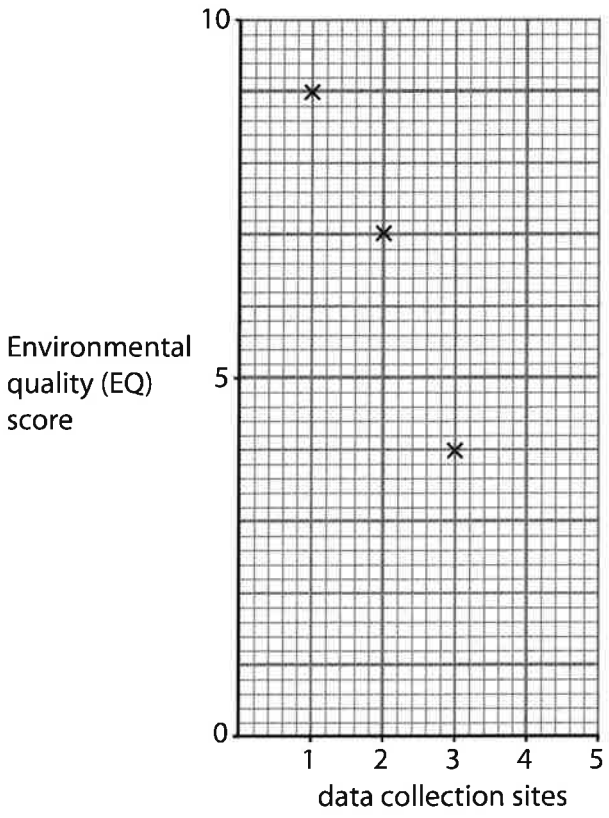


Figure 6d

SECTION C – GLOBAL ISSUES

If you answer Question 7 put a cross in the box ☐ .

7 Fragile environments

(a) Study Figure 7a, which shows information about carbon dioxide (CO_2) emissions by four countries in 2010.

Country	Percentage of total global CO_2 emissions	Emission per person (tonnes)
China	21.5	4.6
Germany	2.8	9.7
India	5.3	1.3
USA	20.2	19.0

Figure 7a

(i) Which country produced the largest percentage of global CO_2 emissions?

(1)

.....

(ii) Which country emitted the lowest amount of CO_2 per person?

(1)

.....

(iii) Germany and the USA are both HICs.

Suggest why there was a difference in the emissions per person between Germany and the USA.

(2)

.....

.....

.....

.....

(iv) The largest contributor to increasing CO_2 emissions is:

Put a cross in the correct box.

(1)

- ☐ **A** agricultural change
- ☐ **B** drought
- ☐ **C** industrialisation

(b) (i) What is meant by the term **global warming**?

(2)

(ii) Outline the attempts being made by the United Nations to tackle the problems of global warming.

(4)

(iii) Suggest why international cooperation to reduce global warming has not been easy to achieve.

(4)

If you answer Question 8 put a cross in the box ☐ .

8 Globalisation and migration

(a) Study Figure 8a, which shows the countries of birth of Australian citizens born outside Australia.

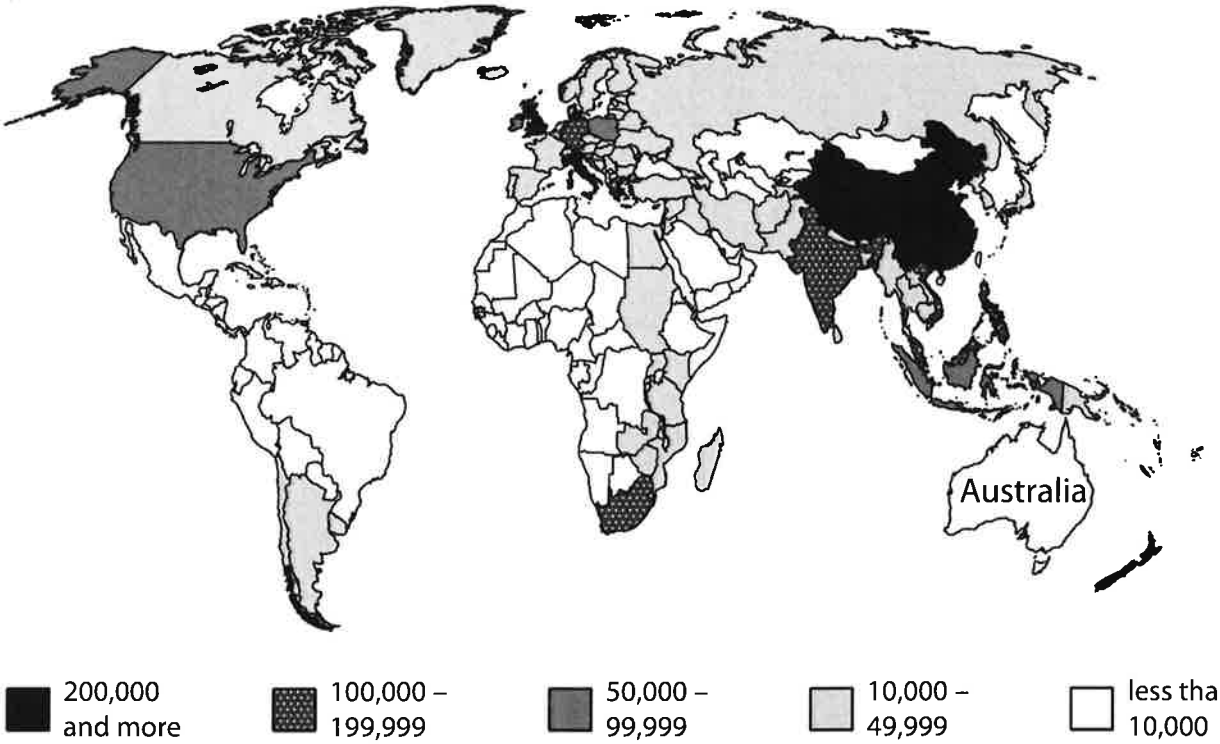


Figure 8a

(i) Which of the following countries provided the most Australian citizens?

Put a cross in the correct box.

(1)

☐ **A** Canada

☐ **B** India

☐ **C** UK

(ii) What is meant by the term **international migration**?

(2)

.....

.....

.....

.....

(iii) Suggest **two** reasons why so many Australian citizens were born in Asia and New Zealand.

(2)

1 .....

2 .....

(b) (i) What is meant by the term **net migration**?

(2)

(ii) Outline **two** push factors that give rise to forced migration.

(4)

1

2

(iii) Suggest **two** reasons why governments might try to manage migration.

(4)

1

2

If you answer Question 9 put a cross in the box ☐ .

9 Development and human welfare

(a) Study Figure 9a, which shows development profiles for three countries (**A**, **B** and **C**) in 2010.

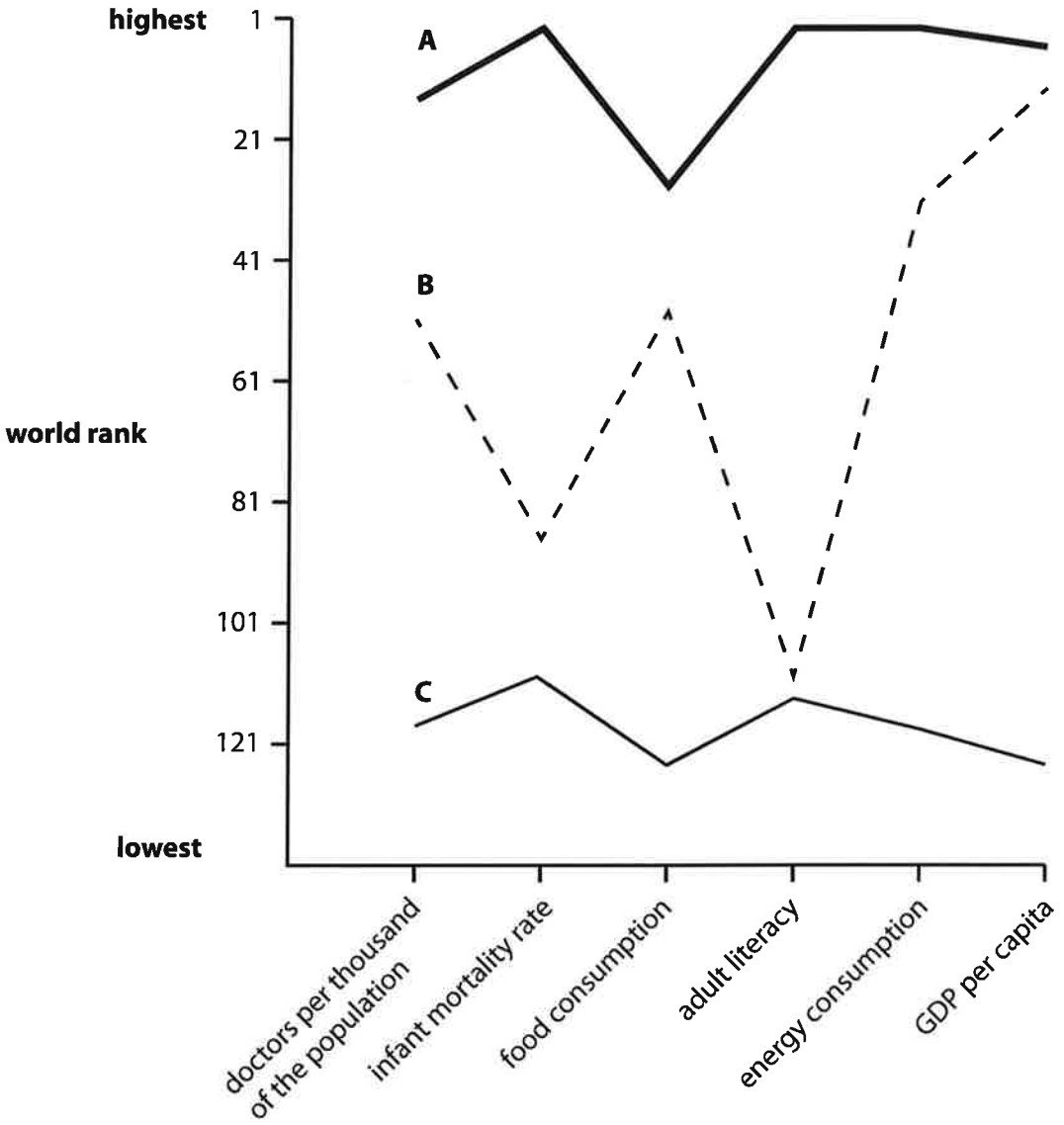


Figure 9a

(i) Which country has the lowest ranking for GDP per capita?

Put a cross in the correct box.

(1)

☐ **A**

☐ **B**

☐ **C**

(ii) Which country has the development profile of an HIC?

(1)

.....

(iii) Which of the countries does not seem to use its GDP for the general benefit of its population?

(1)

.....

(iv) Suggest why GDP per capita is not necessarily a good indicator of quality of life.

(2)

.....

.....

.....

.....

(b) (i) What is meant by the term **global development gap**?

(2)

(ii) Some experts believe that changes in the pattern of global development are narrowing the development gap. Give **two** pieces of evidence to support this belief.

(4)

1

2

(iii) Suggest why MICs, such as China and India, may take some time to reach the level of economic development of HICs.

(4)

Section D

You need to answer one question from Section D.

You have a choice of 9 questions.

Each question is out of 9 marks.

(d) For a named river flood defence scheme, explain how flooding is controlled.

(9)

Name of river flood defence scheme: .....

(Total for Question 1 = 30 marks)

(d) Using examples, explain the factors affecting the distribution of coastal ecosystems.

(9)

(Total for Question 2 = 30 marks)

(d) Explain the causes of volcanic activity. Labelled diagrams may help your answer.

(9)

(Total for Question 3 = 30 marks)

TOTAL FOR SECTION A = 60 MARKS

(d) Using examples, discuss the arguments for and against using renewable sources of energy.

(9)

(Total for Question 4 = 30 marks)

(d) Explain the characteristics and agricultural use of **one** named area of temperate grassland biome.

(9)

Name of temperate grassland biome area: .....

(Total for Question 5 = 30 marks)

(d) Explain the changes taking place in **one** named urban area in an HIC.

(9)

Name of urban area: .....

(Total for Question 6 = 30 marks)

TOTAL FOR SECTION B = 60 MARKS

(d) Discuss the consequences of deforestation. Reference to examples may help your answer.

(9)

(Total for Question 7 = 30 marks)

(d) Discuss the part played by transnational companies (TNCs) in the global economy. You should refer to the operations of at least **one** named TNC.

(9)

(Total for Question 8 = 30 marks)

(d) Discuss the advantages and disadvantages of aid provided for LICs. You should refer to the operations of at least **one** named aid agency.

(9)

(Total for Question 9 = 30 marks)

TOTAL FOR SECTION C = 30 MARKS

TOTAL FOR PAPER = 150 MARKS