Please check the examination details below before entering your candidate information

Candidate surname	Other names

Centre Number | Candidate Number

Pearson Edexcel Level 1/Level 2 GCSE (9–1)

Time 1 hour 30 minutes

Paper reference **1GA0/02**

Geography A

PAPER 2: The Human Environment

You must have:
Resource Booklet (enclosed),
Ordnance Survey Map Extract (enclosed), Calculator

Total Marks

Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- In Section A answer **all** questions.
- Then, answer **either** Section B **or** Section C.
- If you choose Section C – answer **all** of Question 3 and **either** Question 4 **or** Question 5.
- Answer the questions in the spaces provided – *there may be more space than you need.*

Information

- The total mark for this paper is 64.
- The marks for **each** question are shown in brackets – *use this as a guide as to how much time to spend on each question.*
- The marks available for spelling, punctuation and grammar are clearly indicated.

Advice

- Read each question carefully before you start to answer it.
- Check your answers if you have time at the end.

Turn over

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Q:1/1/1/1/1/1/1/1/1/1

P 7 0 8 4 3 R A 0 1 2 4

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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 ☒.

SECTION A

Changing Cities

Answer ALL questions in this section.

Write your answers in the spaces provided.

Spelling, punctuation, grammar and use of specialist terminology will be assessed in Question 1(f).

1 The city of St Albans is influenced by its site, situation and connectivity.

(a) Study the Ordnance Survey (OS) map extract.

(i) Which **one** of the following grid squares does the A1081 main road pass through?

(1)

☒ **A** 1707

☒ **B** 1506

☒ **C** 1808

☒ **D** 1206

(ii) Name the **two** suburbs of St Albans located in the following grid squares.

(2)

1508

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1405

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(iii) Suggest **one** reason why the area in grid square 1407 became the original site of St Albans.

(3)

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(iv) Compare the land use in grid square 1409 with grid square 1505.

(3)

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(b) Study Figure 1a in the Resource Booklet.

(i) Identify the age group with the largest population.

(1)

☒ **A** Age 0 to 14

☒ **B** Age 15 to 29

☒ **C** Age 30 to 44

☒ **D** Age 75 to 89

(ii) Calculate the percentage (%) of Nottingham's population aged 45 to 59 years old.

Give your answer to one decimal place.

You must show your working in the space below.

(2)

.....%

(c) Define the term **de-centralisation**.

(1)

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(d) Study Figure 1b in the Resource Booklet.

(i) Identify the **two** correct statements about migration to Manchester.

(2)

☒ **A** The same number of migrants came from the West Midlands and the East Midlands.

☒ **B** More migrants came from the North West than from the North East and the East Midlands combined.

☒ **C** A total of 3,000 migrants came from the West Midlands and the East combined.

☒ **D** Fewer migrants came from the South East than the North East.

☒ **E** A total of 5,000 people migrated from Yorkshire and the Humber and the North East combined.

(ii) Calculate the range of the number of migrants across all regions shown in Figure 1b.

(1)

..... migrants

(iii) Explain **one** impact of migration on housing in a UK city that you have studied.

(2)

Named UK city

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(e) Explain **two** factors that have influenced the level of urbanisation in different regions of the UK.

(4)

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In this question, up to four additional marks will be awarded for your spelling, punctuation, grammar and use of specialist terminology.

(f) You have studied a major city in **either** a developing **or** an emerging country.

Evaluate how successful bottom-up and top-down approaches have been in solving the problems caused by rapid growth.

(8)

Named city

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(Spelling, punctuation and grammar and use of specialist terminology = 4 marks)

(Total for Question 1 = 34 marks)

TOTAL FOR SECTION A = 34 MARKS

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Answer EITHER Section B OR Section C

SECTION B

Global Development

If you answer Section B put a cross in the box ☒ .

Answer ALL questions in this section. Write your answers in the spaces provided.

2 The level of development of a country can be measured in different ways, for example by using the Human Development Index (HDI).

(a) Study Figure 2a below.

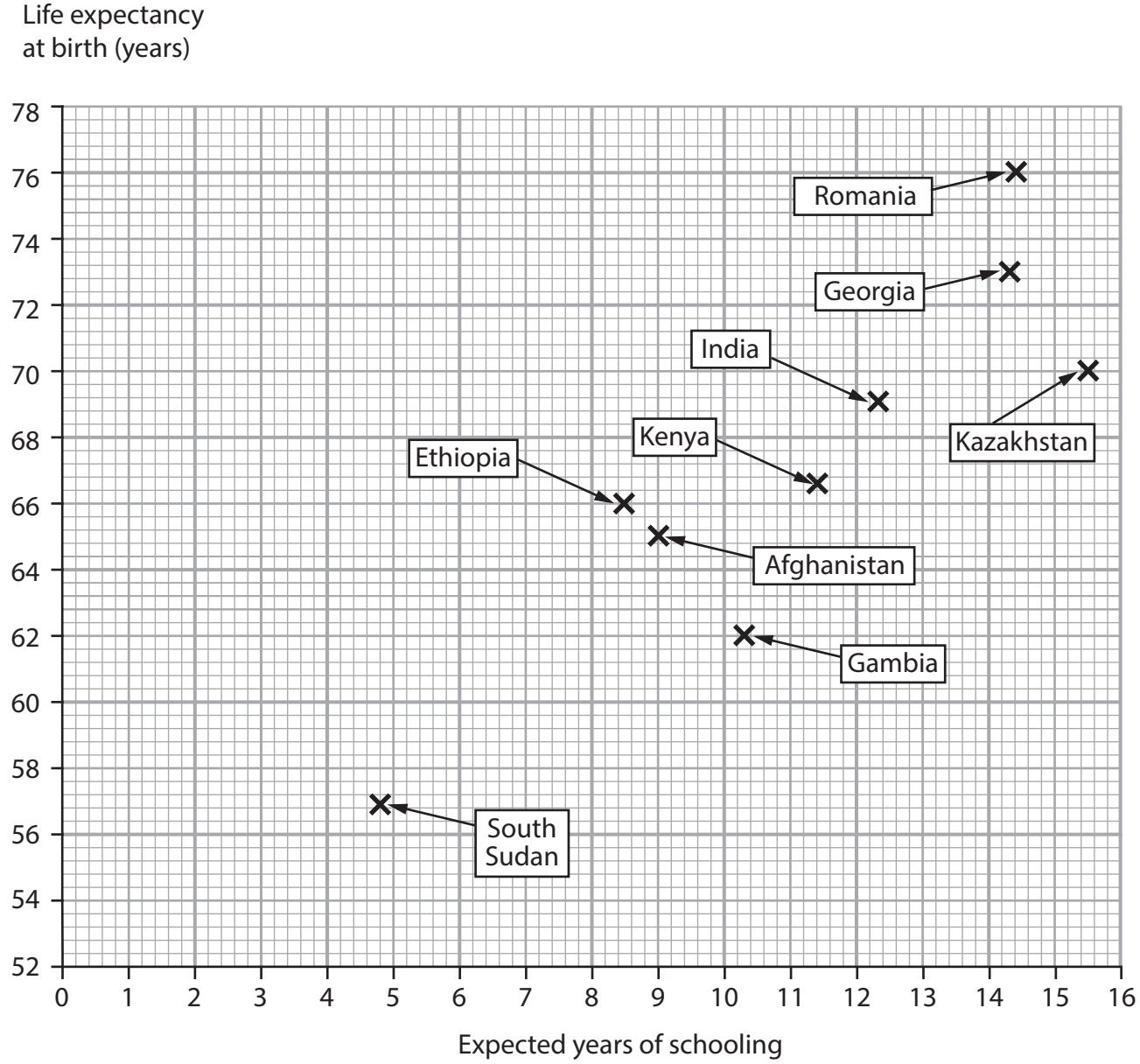

Figure 2a

Life expectancy and expected years of schooling for selected developing and emerging countries in 2018

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(i) Complete Figure 2a by plotting the data in the table below.

(2)

Country	Life expectancy at birth (years)	Expected years of schooling
Sierra Leone	53	9.8
Brazil	76	15.0

(ii) Draw a best fit line on Figure 2a.

(1)

(iii) Describe the relationship shown in Figure 2a.

Use data in your answer.

(2)

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(iv) Suggest **two** reasons for the differences in life expectancy shown in Figure 2a.

Use data in your answer.

(4)

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(v) Figure 2a shows two measures used in the calculation of the HDI.

Identify **one** other measure used to calculate the HDI.

(1)

☒ **A** Infant mortality rate

☒ **B** Number of doctors per 1,000 people

☒ **C** Literacy rate

☒ **D** Gross National Income per capita

(b) Explain **one** historical factor that has led to variations in levels of development within the UK.

(2)

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(c) Changes have been taking place in the economic sectors of developing and emerging countries.

Study Figure 2b in the Resource Booklet.

(i) Identify the economic sector shown in Figure 2b.

(1)

☒ **A** Primary

☒ **B** Secondary

☒ **C** Tertiary

☒ **D** Quaternary

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(ii) The growth of this economic sector has increased the average earnings of the people in India.

State **one** other possible positive impact of the growth of this sector for people in India.

(1)

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(iii) The starting salary for the workers in Figure 2b is 260,000 Indian Rupees per year.

1 Indian Rupee (₹) = 0.012 British Pounds (£)

Calculate the starting salary for these workers in British Pounds (£).

(1)

£..... per year

(d) Describe how **one** geopolitical relationship has affected the development of a named developing country **or** emerging country.

(3)

Named developing or emerging country

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(e) Explain **two** negative environmental impacts of rapid development.

(4)

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(f) You have studied development in **either** a developing country **or** an emerging country.

Assess the importance of different factors that have led to uneven development within this country.

(8)

Named country

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TOTAL FOR SECTION B = 30 MARKS

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Do not answer Section C if you have answered Section B.

SECTION C

Resource Management

If you answer Section C put a cross in the box ☒ .

Answer all parts of Question 3.

Write your answers in the spaces provided.

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 ☒.

3 People obtain natural resources, such as fossil fuels, from the environment.

(a) Identify **two** fossil fuels.

(2)

☐ **A** Coal

☐ **B** Diamonds

☐ **C** Uranium

☐ **D** Oil

☐ **E** Gold

(b) Name **one** biotic and **one** abiotic resource.

(2)

Biotic resource

.....

Abiotic resource

.....

(c) Study Figure 3 in the Resource Booklet.

(i) Name the region with the highest annual meat production in 1961.

(1)

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(ii) Describe the overall change in meat production in Asia.

Use data in your answer.

(2)

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(iii) Suggest **one** reason for the differences in meat production between Europe and Asia.

(3)

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(Total for Question 3 = 10 marks)

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Answer EITHER Question 4 OR Question 5.

Energy Resource Management

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

4 Renewable and non-renewable resources are being developed to meet the growing demand for energy.

(a) Identify the correct definition of **non-renewable** energy.

(1)

☒ **A** Energy from sources that cannot be reused or replenished

☒ **B** Energy from artificially produced materials

☒ **C** Energy from supplies that will never run out

☒ **D** Energy from resources that do not contain carbon

(b) Define the term **hydro-electric power**.

(1)

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(c) Explain **one** advantage and **one** disadvantage for the environment of using uranium to generate electricity.

(4)

Advantage

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Disadvantage

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(d) Study Figure 4a and Figure 4b in the Resource Booklet.

(i) State **one** advantage of fracking.

Only use evidence from Figure 4a in your answer.

(1)

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(ii) Identify the percentage (%) of UK residents in Figure 4b who are in favour of fracking in their local area.

(1)

☒ **A** 20%

☒ **B** 40%

☒ **C** 60%

☒ **D** 80%

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(iii) Suggest **one** reason for the viewpoint held by the majority of the residents who took part in the survey.

Only use evidence from Figures 4a and 4b in your answer.

(4)

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(e) Assess the following statement.

(8)

The aim of reducing greenhouse gas emissions is the main reason why countries are developing renewable energy resources.

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(Total for Question 4 = 20 marks)

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Do not answer Question 5 if you have answered Question 4.

Water Resource Management

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

5 Water resources are being managed to deal with changes in supply and demand.

(a) Identify the correct definition of **water deficit**.

(1)

☒ **A** There is low rainfall in a region

☒ **B** The demand for water is rising

☒ **C** The water quality has been affected by pollution

☒ **D** The demand for water is greater than supply

(b) Define the term **sustainable management**.

(1)

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(c) Explain **two** reasons why the global demand for water has increased.

(4)

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(d) Study Figure 5a and Figure 5b in the Resource Booklet.

(i) State **one** disadvantage of desalination.

Only use evidence from Figure 5a in your answer.

(1)

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(ii) Identify the percentage (%) of UK residents in Figure 5b who are against the development of desalination in the UK.

(1)

☒ **A** 20%

☒ **B** 40%

☒ **C** 60%

☒ **D** 80%

(iii) Suggest **one** reason for the viewpoint held by the majority of the residents who took part in the survey.

Only use evidence from Figures 5a and 5b in your answer.

(4)

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(e) Assess the following statement.

(8)

Low annual rainfall is the main reason why some countries have water supply problems and are struggling to meet demand.

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(Total for Question 5 = 20 marks)

TOTAL FOR SECTION C = 30 MARKS
TOTAL FOR PAPER = 64 MARKS

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Ordnance Survey

1:50 000 Scale
Landranger Series

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Extract No 2414/166

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Four colours should appear above; if not then please return to the invigilator.

ROADS AND PATHS

Not necessarily rights of way

- Junction number; Service area; Elevated; M1 — Motorway (dual carriageway)
- Unfenced; A 470 — Primary Route (A network of recommended through routes which complement the motorway system)
- Dual carriageway
- A 493 — Main road
- Footbridge
- Road under construction
- B 4518 — Secondary road
- A 855; Bridge; B 885 — Narrow road with passing places
- Road generally more than 4m wide
- Road generally less than 4m wide
- Path / Other road, drive or track
- Gradient: steeper than 20% (1 in 5), 14% to 20% (1 in 7 to 1 in 5)
- Gates, Road tunnel
- Ferry P; Ferry V — Ferry (passenger), Ferry (vehicle)

RAILWAYS

- Track multiple or single
- Track under construction
- Siding
- Tunnel, cuttings
- Narrow gauge, tramway or light rail system
- Bridges, footbridge
- LC — Level crossing
- Viaduct, embankment
- a — Station, (a) principal
- Light rail station

WATER FEATURES

Marsh or salting; Towpath; Lock; Slopes; Cliff; Shingle; Aqueduct; Canal; Ford; Beacon; Flat rock; Lighthouse (in use); Lighthouse (disused); Weir; Footbridge; Normal tidal limit; Bridge; Sand Dunes; Low water mark; Mud; Lake; High water mark; Canal (dry)

HEIGHTS

1 metre = 3·2808 feet

- 50 — Contours are at 10 metres vertical interval
- ·144 — Heights are to the nearest metre above mean sea level

Where two heights are shown, the first is the height of the natural ground in the location of the triangulation pillar, and the second (in brackets) to a separate point which is the natural summit.

ROCK FEATURES

Outcrop; 650; Cliff; 600; Scree

PUBLIC RIGHTS OF WAY

- Footpath
- Bridleway
- Restricted byway (not for use by mechanically propelled vehicles)
- Byway open to all traffic

The symbols show the defined route so far as the scale of mapping will allow.

The representation on this map of any other road, track or path is no evidence of the existence of a right of way. Not shown on maps of Scotland

Danger Area — Firing and Test Ranges in the area. Danger! Observe warning notices.

OTHER PUBLIC ACCESS

- Other route with public access (not normally shown in urban areas). Alignments are based on the best information available. These routes are not shown on maps of Scotland.
- On-road cycle route
- Traffic-free cycle route
- 4 — National Cycle Network number
- 8 — Regional Cycle Network number
- National Trail, Scotland's Great Trails, European Long Distance Path and selected Recreational Routes

BOUNDARIES

- National
- District
- County, Unitary Authority, Metropolitan District or London Borough
- National Park

ANTIQUITIES

- Site of antiquity
- Site of Battle (with date)
- Visible earthwork
- VILLA — Roman
- Castle — Non-Roman

TOURIST INFORMATION

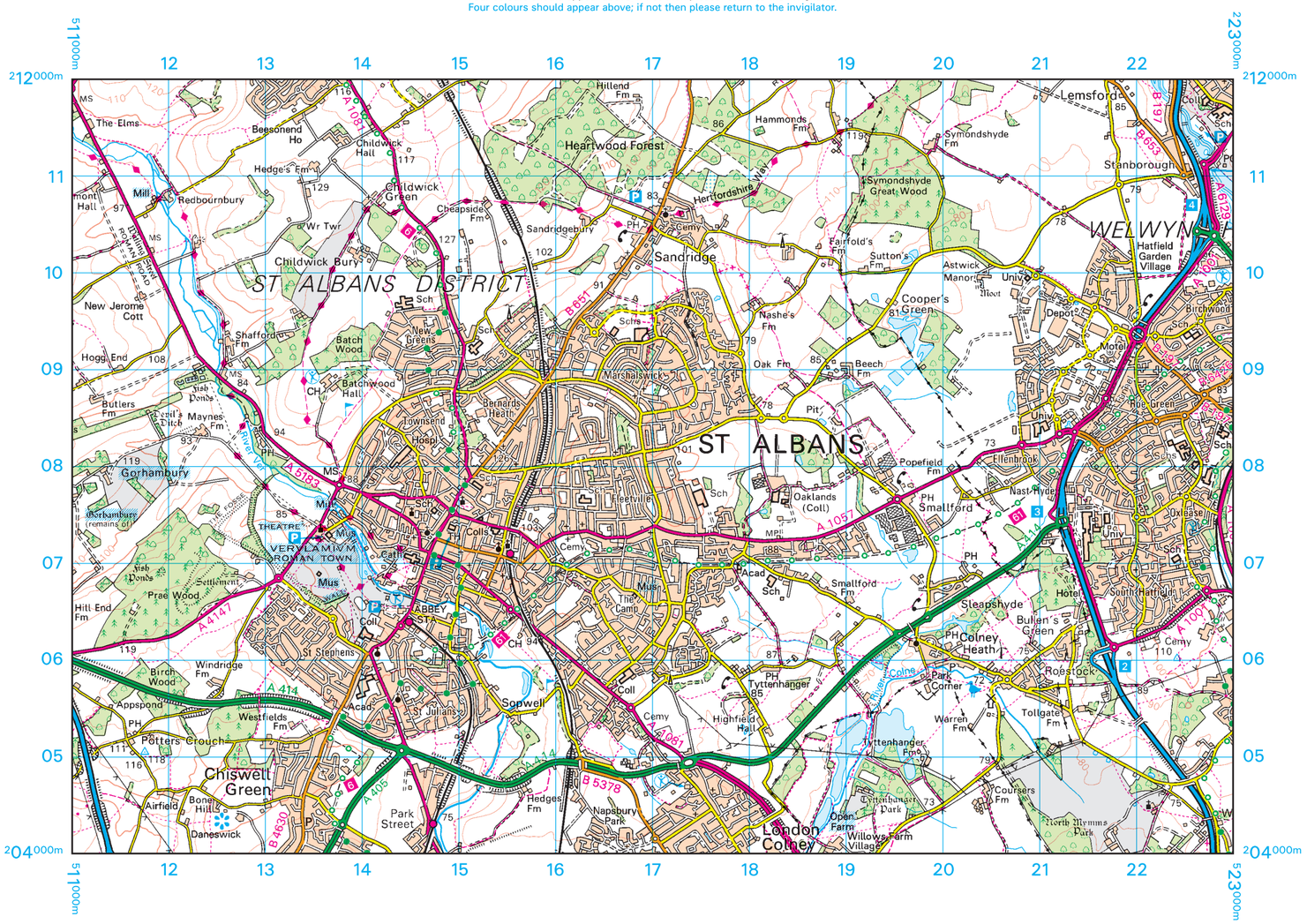
- Camp site / caravan site
- Garden/aboretum
- Golf course or links
- Information centre (all year / seasonal)
- Nature reserve
- P; P&R — Parking, Park and ride (all year / seasonal)
- Picnic site
- Recreation / leisure / sports centre
- Selected places of tourist interest
- Phone, public / emergency
- Viewpoint
- V — Visitor centre
- Walks / Trails
- World Heritage site or area
- Youth hostel

LAND FEATURES

- Electricity transmission line (pylons shown at standard spacing)
- Pipe line (arrow indicates direction of flow)
- b ruin — Buildings
- Important building (selected)
- Bus or coach station
- Current or former place of worship — with tower; with spire, minaret or dome
- Place of worship
- Glass structure
- H — Heliport
- Triangulation pillar
- Mast
- Wind pump, Wind turbine
- Windmill with or without sails
- Graticule intersection at 5' intervals
- Cutting, embankment
- Landfill site or slag/spoil heap
- Coniferous wood
- Non-coniferous wood
- Mixed wood
- Orchard
- Park or ornamental ground
- Solar farm (when not described)
- Access land (symbols indicate owner or agency – see below)
- Forestry and Land Scotland, Forestry England
- Natural Resources Wales
- National Trust; always open, limited access – observe local signs
- National Trust for Scotland; always open, limited access – observe local signs

ABBREVIATIONS

Br	Bridge	MS	Milestone
Cemy	Cemetery	Mus	Museum
CG	Cattle grid	P	Post office
CH	Clubhouse	PC	Public convenience (in rural areas)
Fm	Farm	PH	Public house
Hospl	Hospital	Sch	School
Ho	House	TH	Town Hall, Guildhall or equivalent
MP	Milepost	Univ	University



Scale 1: 50 000
2 centimetres to 1 kilometre (one grid square)

2 1 0 Kilometres 1 2 3

1 0 Miles 1 2

1 kilometre = 0·6214 mile

1 mile = 1·6093 kilometres

True North; Grid North; Magnetic North

Diagrammatic only

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Pearson Edexcel Level 1/Level 2 GCSE (9–1)

Time 1 hour 30 minutes

Paper reference **1GA0/02**

Geography A

PAPER 2: The Human Environment

Resource Booklet

Do not return this Booklet with the question paper.

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Age group (years)	Population
0 to 14	123,984
15 to 29	172,978
30 to 44	149,430
45 to 59	134,838
60 to 74	96,379
75 to 89	47,442
90 and over	4,926
Total population	729,977

Figure 1a

2011 Census data for Nottingham, a UK city

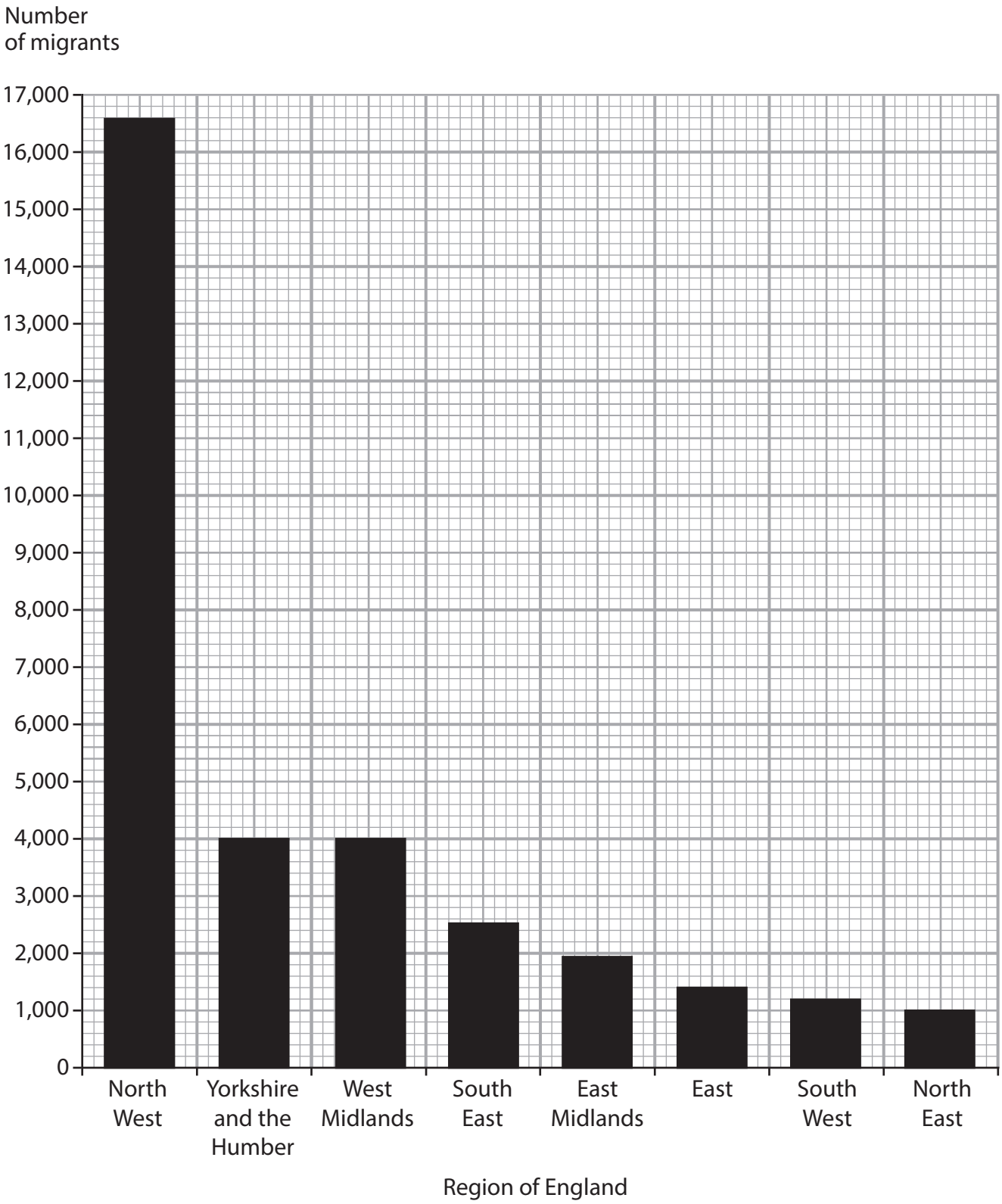

Figure 1b

Migration to Manchester from different regions of England, 2014–2015

Workers at this call centre spend their day answering calls, emails and web chat enquiries from customers of the TNC.

Some of these workers also deal with customer orders, card payments, enquiries and complaints.

Figure 2b

Information about call centre workers for a transnational corporation (TNC) in India

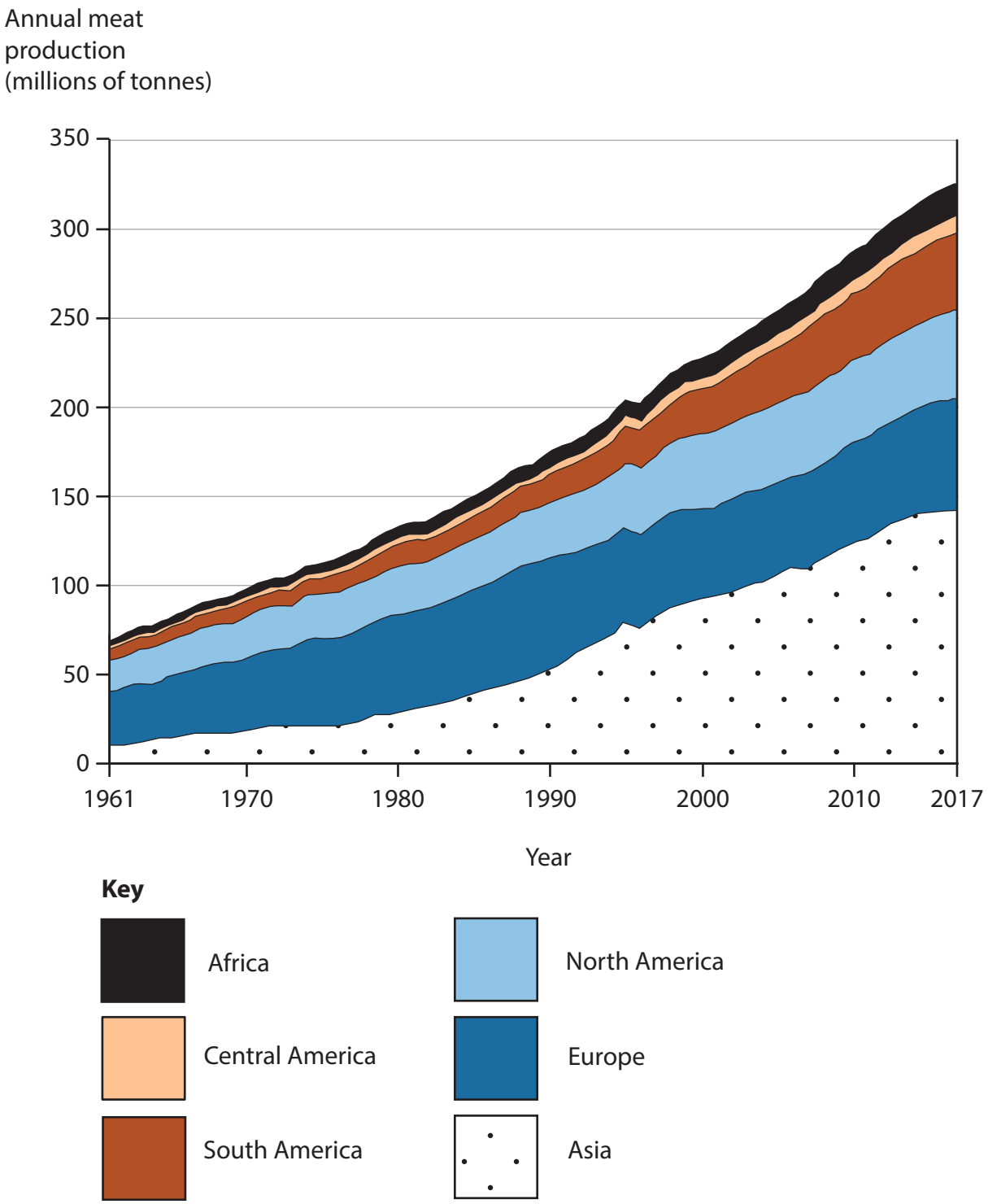

Figure 3

Annual meat production in selected global regions (millions of tonnes), 1961–2017

Fracking is the process of drilling into layers of rock and then pumping down water and chemicals under pressure to release trapped shale gas. This gas can be collected at the surface and used as an energy resource.

One newspaper article suggests that fracking could generate £33 billion of investment in the UK and create 64,000 jobs. Also, supporters of fracking believe that it will give us cheaper energy for the future and increase our energy security.

However, an 18-year plan to drill 4,000 wells in the UK is still waiting to be allowed to go ahead. Opponents of fracking say the process causes earthquakes and will contaminate water sources. Another issue raised by opponents of fracking is the huge amount of water the process requires.

Figure 4a

Information about the development of fracking in the UK

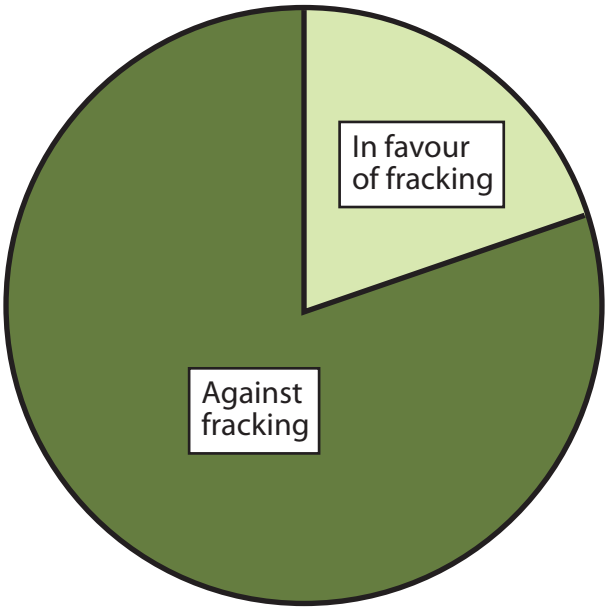

Figure 4b

The result from a survey of UK residents who were asked, 'Would you be in favour of fracking in your local area?'

Desalination is the process of removing salt from sea water to create fresh water. However, desalination has not yet been developed in the UK on a large scale due to the high set-up and running costs.

A recent article said that desalination could provide thousands of people in the UK with fresh drinking water and additional water for farming. Also, desalination can help preserve the UK's limited freshwater supplies because there are fears that there could be more water shortages as a result of climate change.

Opponents of desalination plants say that these plants use a lot of energy. Another problem of desalination is that the process often creates waste products such as brine and chlorine, which are toxic and could cause pollution.

Figure 5a

Information about the development of desalination in the UK

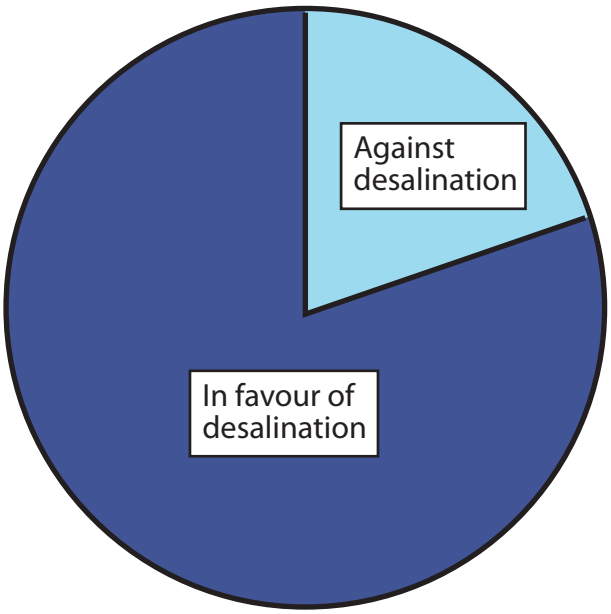

Figure 5b

The result from a survey of UK residents who were asked, 'Would you be in favour of developing desalination plants in the UK?'

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Acknowledgements
Pearson Education Ltd. gratefully acknowledges all the following sources used in the preparation of this paper:
Figure 1a https://www.nomisweb.co.uk/reports/localarea?compare=E34004946
Figure 1b https://secure.manchester.gov.uk/info/200088/statistics_and_intelligence/438/population
Figure 2b © Marco Cristofori/Alamy Stock Photo
Figure 3 http://www.teoti.com/health/158242-which-countries-eat-the-most-meat.html