



ADVANCED SUBSIDIARY (AS)
General Certificate of Education
2011

Centre Number

71

Candidate Number

Geography

Assessment Unit AS 2

assessing

Human Geography

[AG121]

FRIDAY 17 JUNE, MORNING



TIME

1 hour 30 minutes.

INSTRUCTIONS TO CANDIDATES

Write your Centre Number and Candidate Number in the spaces provided at the top of this page.

Section A: candidates must answer this section.

Section B: answer **all three** questions in this section.

Section C: answer **any two** questions from this section.

You should write your answers in the spaces provided in this question paper.

You are provided with an insert sheet for use with question 3.

Do not write your answers on this insert.

INFORMATION FOR CANDIDATES

The total mark for this paper is 90.

Quality of written communication will be assessed in **all** questions.

Figures in brackets printed down the right-hand side of pages indicate the marks awarded to each question or part question.

For Examiner's
use only

Question Number	Marks
1	
2	
3	
4	
5	
6	
7	

Total
Marks

Section A

Answer this section

- 1 (a)** Study **Resource 1A**, a table showing the birth and death rates in Japan between 1955 and 2008 and **Resource 1B** on page 3, a partially completed line graph to illustrate this data.

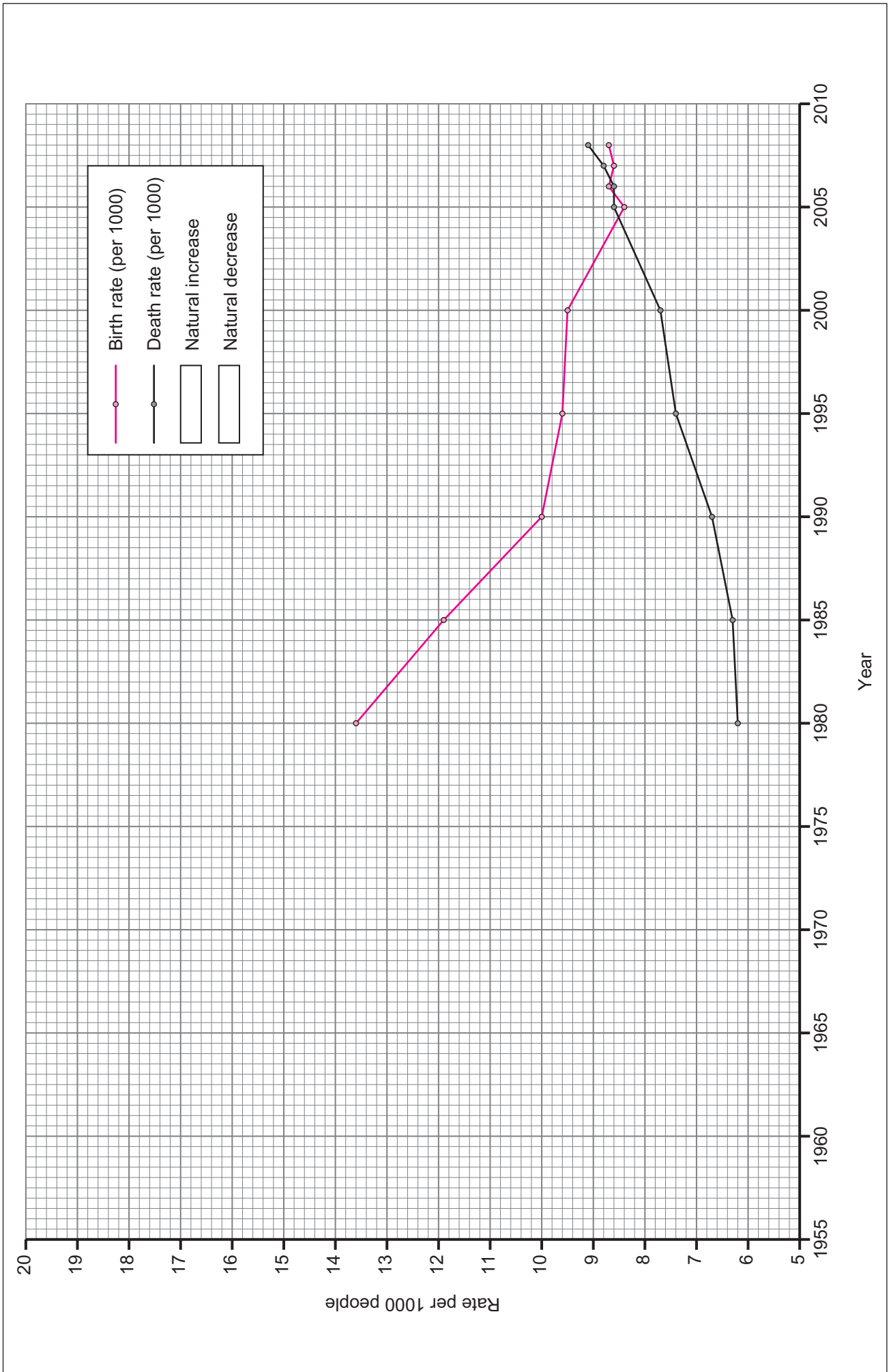
Resource 1A

Year	Live Births per 1000	Deaths per 1000
1955	19.4	7.8
1960	17.2	7.6
1965	18.8	7.1
1970	18.8	6.9
1975	17.1	6.3
1980	13.6	6.2
1985	11.9	6.3
1990	10.0	6.7
1995	9.6	7.4
2000	9.5	7.7
2005	8.4	8.6
2006	8.7	8.6
2007	8.6	8.8
2008	8.7	9.1

© Statistical Handbook of Japan 2011 by Statistics Bureau, Japan

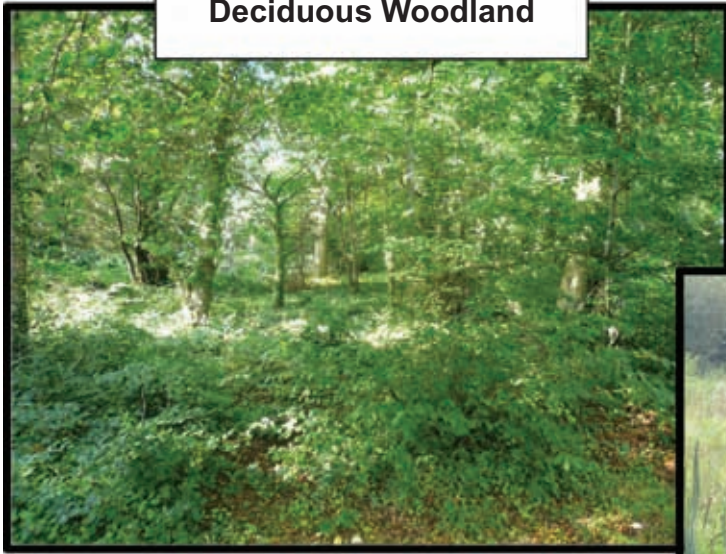
- (i) Complete the line graphs using the data provided in **Resource 1A**. [6]
- (ii) Shade the graph, **Resource 1B**, to indicate periods of Natural Increase and Natural Decrease and complete the key. [2]

Resource 1B



Resource 1C

Deciduous Woodland



Marshland



Peatland



Heather Moorland



Lichen on Tree



Source: Principal Examiner

- (iii) Explain **one** reason why pragmatic sampling may be considered less than ideal when collecting data.

 [2]

- (c) **Resource 1D** relates to the initial stages of a Spearman's Rank statistical test used to investigate the relationship between the Human Development Index (HDI) and the percentage of the population living in urban areas for a sample of 15 countries.

(Note the HDI is a composite measure of development composed from data on life expectancy, education and per capita GDP. Each country's value ranges between 0 and 1 with higher values indicating higher levels of development.)

Resource 1D

Country	X HDI	Rank X	Y % Urban	Rank Y	d	d ²
Canada	0.966	1	81	3	-2	4
Japan	0.960	2	79	4	-2	4
Austria	0.955	3	67	5	-2	4
Belgium	0.953	4	97	1	3	9
U.K.	0.947	5	90	2	3	9
Belize	0.772	6	50	9.5	-3.5	12.25
Algeria	0.754	7	58	7		
Bolivia	0.729	8	63	6	2	4
Egypt	0.703	9	43	11	-2	4
Botswana	0.694	10	54	8	2	4
Malawi	0.493	11	17	15	-4	16
Senegal	0.464	12	41	12	0	0
Gambia	0.460	13	50	9.5	3.5	12.25
Mozambique	0.402	14	35	13		
Chad	0.392	15	21	14	1	1

© U.S. Central Intelligence Agency

$$\Sigma d^2 = 84.5$$

- (i) Complete **Resource 1D** by filling in the missing values. [2]

- (ii) In the space below, complete the Spearman's Rank calculation and comment on the statistical significance of the outcome. Formulae and significance charts are presented in **Resource 1E** on page 9.

$R_s =$ _____

Comment on the statistical significance

[5]

Examiner Only	
Marks	Remark

Resource 1E

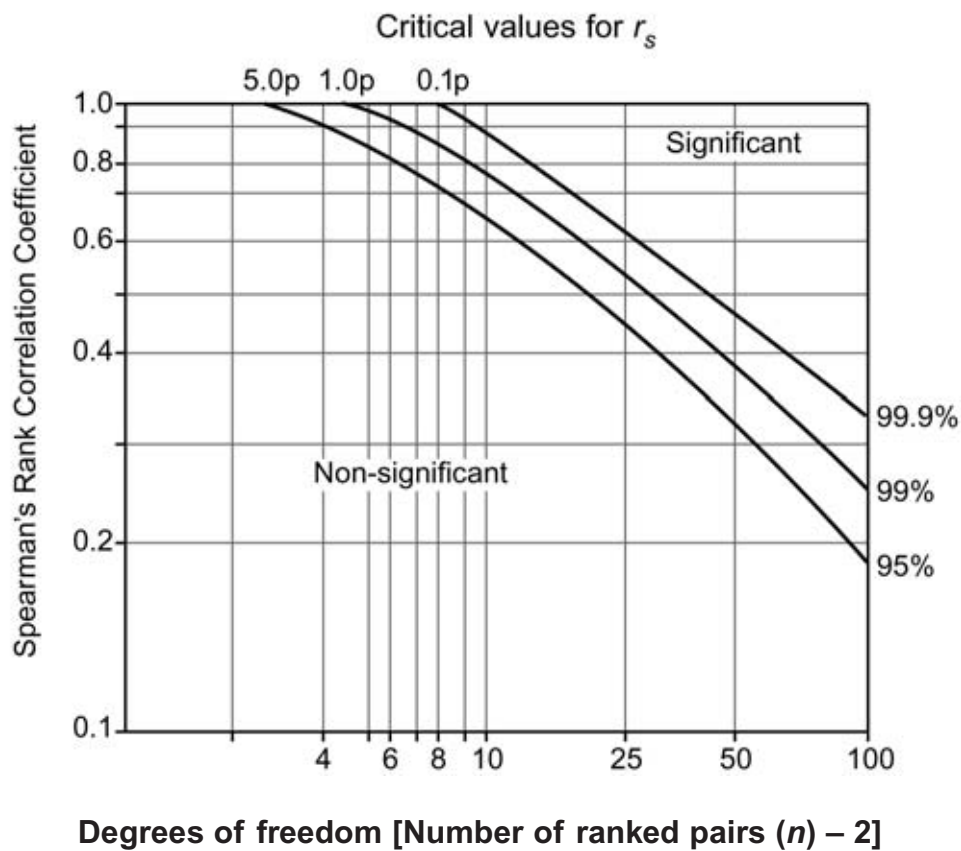
Spearman's Rank Correlation Equation and Significance Charts

Formula:

$$r_s = 1 - \left(\frac{6 \sum d^2}{n^3 - n} \right)$$

where d = the difference in rank of the values of each matched pair n = the number of ranked pairs Σ = the sum of

Spearman's Rank Correlation Significance Graph and Table



Significance level

degrees of freedom	0.05 (5%)	0.01 (1%)
8	0.72	0.84
9	0.68	0.80
10	0.64	0.77
11	0.60	0.74
12	0.57	0.71
13	0.54	0.69
15	0.50	0.65
20	0.47	0.59

Section B

Answer **all three** questions in this section

Examiner Only

Marks Remark

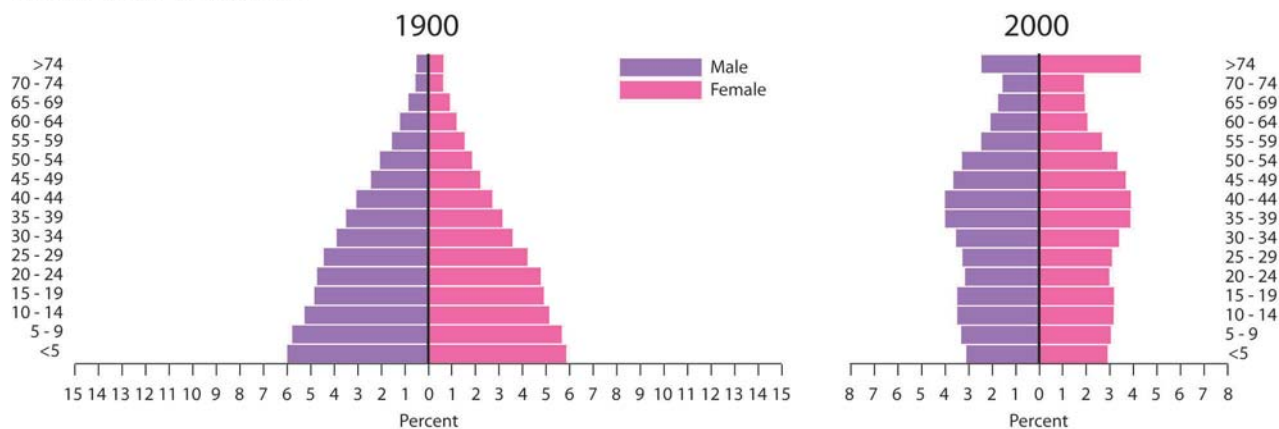
2 (a) Describe the main sources of population data.

[4]

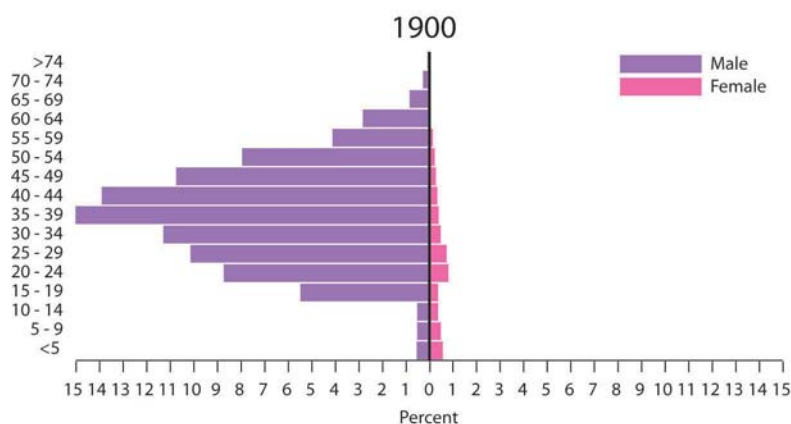
(b) Study **Resource 2** which shows the population structure in the USA of the White population in 1900 and 2000 and the Asian and Pacific Islander population in 1900.

Resource 2

WHITE POPULATION



ASIAN AND PACIFIC ISLANDER POPULATION



© US Census Bureau, Decennial Census of Population, 1900, 1950 and 2000

Using evidence from **Resources 3A–C**, discuss **one positive** and **one negative** effect of developments such as the Gardiner Square project.

[6]6420.07R

Countries/Regions	Percentage of the population living on over PPP US\$ 200 a day
Central Africa	0.0
Southeastern Africa	0.2
Northern Africa	0.0
Southern Asia	0.0
Asia Pacific	0.2
Middle East	0.2
Eastern Asia	0.1
South America	0.6
Eastern Europe	0.0
North America	7.8
Western Europe	2.9
Japan	0.3

A bar chart titled 'Millions of people living on PPP US \$1 a day or less' on the y-axis and 'Countries/Regions' on the x-axis. The y-axis ranges from 0 to 450 in increments of 50. The x-axis lists ten regions. The bars are color-coded: Central Africa (brown), Southeastern Africa (red), Northern Africa (orange), Southern Asia (yellow), Asia Pacific (light yellow), Middle East (dark yellow), Eastern Asia (green), South America (teal), Eastern Europe (light blue), and North America (dark blue). Western Europe and Japan have no visible bars, indicating zero or negligible values.

Countries/Regions	Millions of people living on PPP US \$1 a day or less
Central Africa	55
Southeastern Africa	75
Northern Africa	155
Southern Asia	445
Asia Pacific	55
Middle East	10
Eastern Asia	225
South America	45
Eastern Europe	5
North America	15
Western Europe	0
Japan	0

6420.07R

- (b) Describe and explain **one** way in which aid can positively **or** negatively affect development.

[4]

Examiner Only	
Marks	Remark

[illegible]

Number your answers clearly

Question
Number

[illegible]

[illegible]

Question
Number

Number your answers clearly

[illegible]

[illegible]

Question
Number

Number your answers clearly

[illegible]

[illegible]

Question
Number

Number your answers clearly

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Remark

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Question
Number

Number your answers clearly

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Remark

[illegible]

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GCE Geography Advanced Subsidiary (AS)
Assessment Unit AS2
Summer 2011

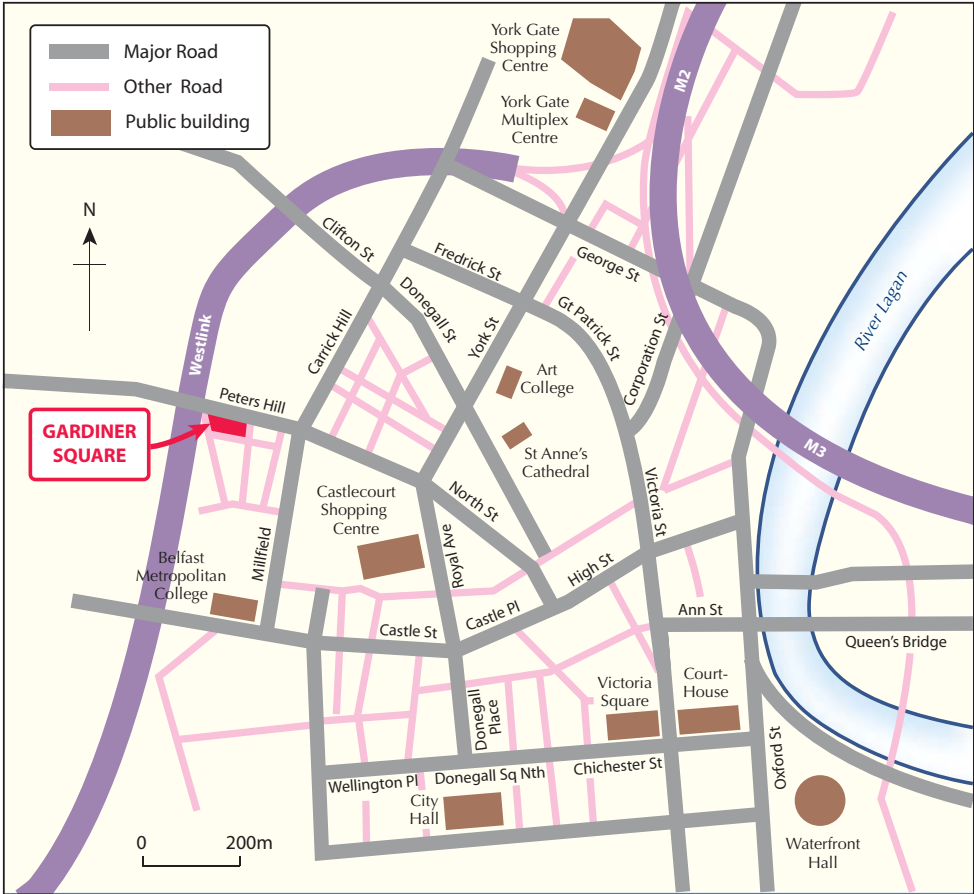
Resource 3 for use with Question 3

Resource 3A



Source: Principal Examiner

Resource 3B



© CCEA

Resource 3C

GARDINER SQUARE

Belfast
City Central

Gardiner Square is a contemporary, yet modern development, combining clean, classic lines with a superb standard of specification. Each of its one and two bedroom turnkey homes offer an exclusive opportunity to enjoy city central apartment living.

Apt 42	2 bed	£111,950
Apt 43	1 bed	£114,950



© Hagan Homes