

Surname						Other Names					
Centre Number						Candidate Number					
Candidate Signature											

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General Certificate of Education
 June 2004
 Advanced Level Examination



GEOGRAPHY
Unit 7

GGA7

Friday 18 June 2004 Morning Session

In addition to this paper you will require:
 pre-release material (previously despatched);
 a calculator.

Time allowed: 2 hours

Instructions

- Use blue or black ink or ball-point pen.
- Fill in the boxes at the top of this page.
- Answer **all** questions in the spaces provided.
- Do all rough work in this book. Cross through any work you do not want marked.
- Figure and page numbers prefixed **P** are to be found in the pre-release book.

Information

- The maximum mark for this paper is 100.
- Mark allocations are shown in brackets.
- You will be assessed on your ability to use an appropriate form and style of writing, to organise relevant information clearly and coherently, and to use specialist vocabulary, where appropriate.
- The degree of legibility of your handwriting and the level of accuracy of your spelling, punctuation and grammar will also be taken into account.

Advice

Where appropriate, credit will be given for the use of diagrams to illustrate answers and where reference is made to your personal investigative work. You are advised to allocate your time carefully.

For Examiner's Use			
Number	Mark	Number	Mark
1			
2			
3			
4			
5			
Total (Column 1)	→		
Total (Column 2)	→		
TOTAL			
Examiner's Initials			

Answer **all** questions in the spaces provided.

1 Aims

- (a) With reference to your own experience of planning a fieldwork enquiry, and the objectives on page **P2**, outline how **Figure P1a** might have provided the idea for this study on the issue of regeneration.

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(4 marks)

- (b) Suggest why the Goad Plan of the Broad Street section of Birmingham’s central area was an appropriate source for determining the initial study area.

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(2 marks)



- (ii) **Figures 1 and 2** show location C before and after regeneration. Label **Figures 1 and 2** to show the changes which have occurred to both the buildings and the environment.



Figure 1



Figure 2

(6 marks)

NO QUESTIONS APPEAR ON THIS PAGE

QUESTION 3 CONTINUES ON THE NEXT PAGE

Turn over ►

(iii) **Figures 3 and 4** are land use maps drawn from the raw data displayed on **Figures P7 and P8**, whilst **Figure P6** shows land use before regeneration.

Figure 3:

Land use map of Birmingham's Central Area before regeneration using raw data. Has not been reproduced here due to third-party copyright constraints.

Comment on the changes in land use between 1947 (**Figure P6**) and 1994 (**Figure 3**) and assess the extent of continued change between 1994 and 2002 (**Figure 4**).

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Figure 4:
Land use map of Birmingham's Central Area after regeneration using raw data. Has not been reproduced here due to third-party copyright constraints.

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(8 marks)
Turn over ►

- (b) (i) Using **Figures P4** and **P8**, identify features A–E on **Figure 5**, an outline plan of the area shown on and drawn from **Figure P4**.

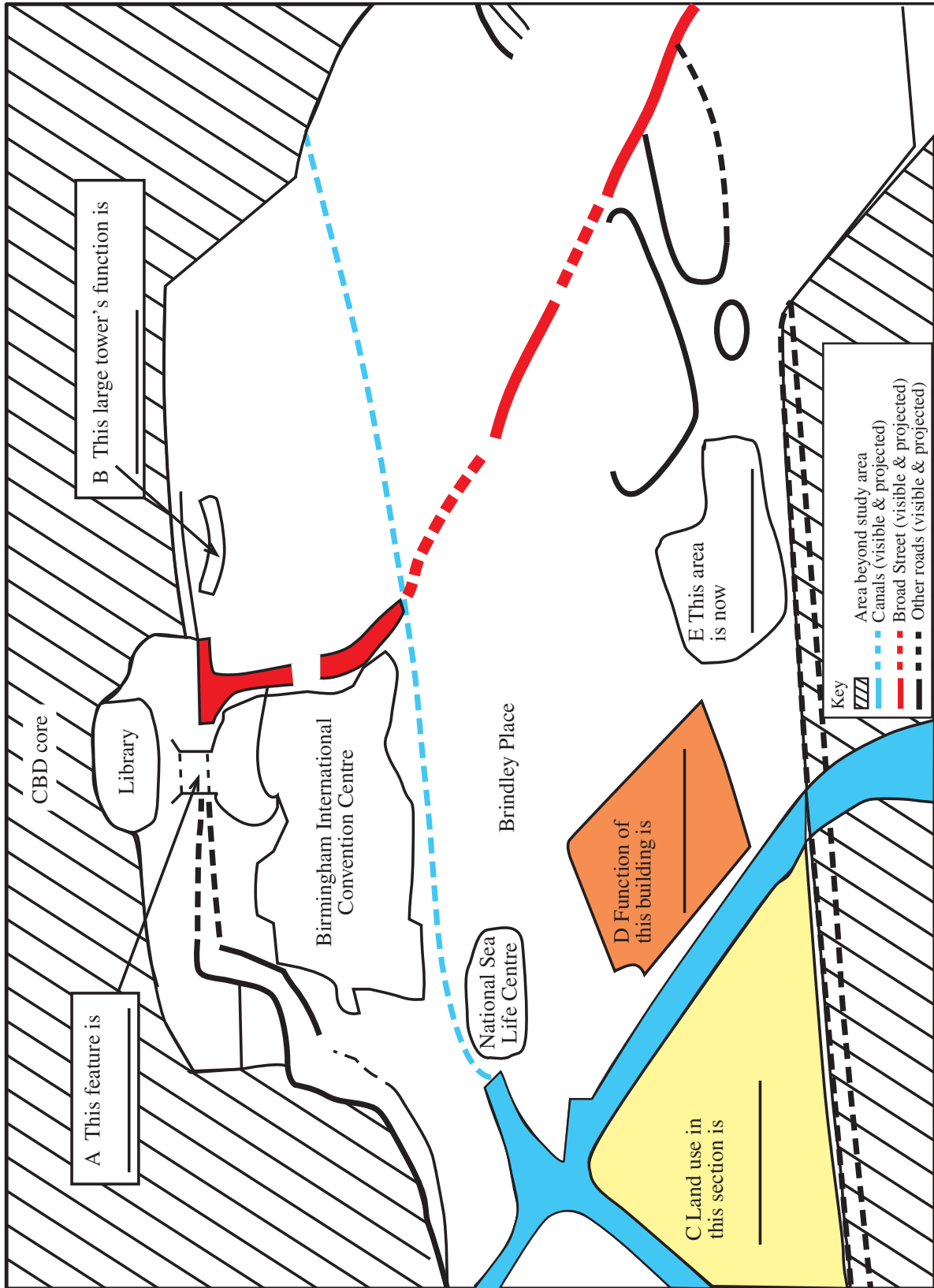


Figure 5

(5 marks)

State your expected/alternative hypothesis.

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(2 marks)

(iv) Complete **Figure 6b** to calculate the value of χ^2 .

Broad Street	Hotels	Bars	Places to Eat	Total
Section 1	1	3	0	4
Section 2	2	9	1	12
Section 3	1	8	8	17
Total	4	20	9	33

Observed Frequency

Broad Street	Hotels	Bars	Places to Eat	Total
Section 1	$\frac{4 \times 4}{33} = 0.48$	$\frac{20 \times 4}{33} = 2.42$	$\frac{9 \times 4}{33} = 1.09$	4
Section 2	$\frac{4 \times 12}{33} = 1.45$	$\frac{20 \times 12}{33} = 7.27$	$\frac{9 \times 12}{33} = 3.27$	12
Section 3	$\frac{4 \times 17}{33} = 2.06$	$\frac{20 \times 17}{33} = 10.30$	_____ = _____	17
Total	4	20	9	33

Expected Frequency

$$\chi^2 = \sum \frac{(O - E)^2}{E}$$

$$\chi^2 = \frac{(1 - 0.48)^2}{0.48} + \frac{(3 - 2.42)^2}{2.42} + \frac{(0 - 1.09)^2}{1.09}$$

$$+ \frac{(2 - 1.45)^2}{1.45} + \frac{(9 - 7.27)^2}{7.27} + \frac{(1 - 3.27)^2}{3.27}$$

$$+ \frac{(1 - 2.06)^2}{2.06} + \frac{(8 - 10.3)^2}{10.3} + \frac{(\quad)^2}{\quad}$$

$$= 0.56 + 0.14 + 1.09 + 0.21 + 0.41 + 1.58 + 0.55 + 0.51 +$$

$$= 7.48$$

Figure 6b

(3 marks)

- (v) Using only the table of critical values below, interpret the χ^2 value which has been calculated.

Degrees of Freedom	Significance Level	
	0.05	0.01
4	9.49	13.28

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(3 marks)

QUESTION 3 CONTINUES ON THE NEXT PAGE

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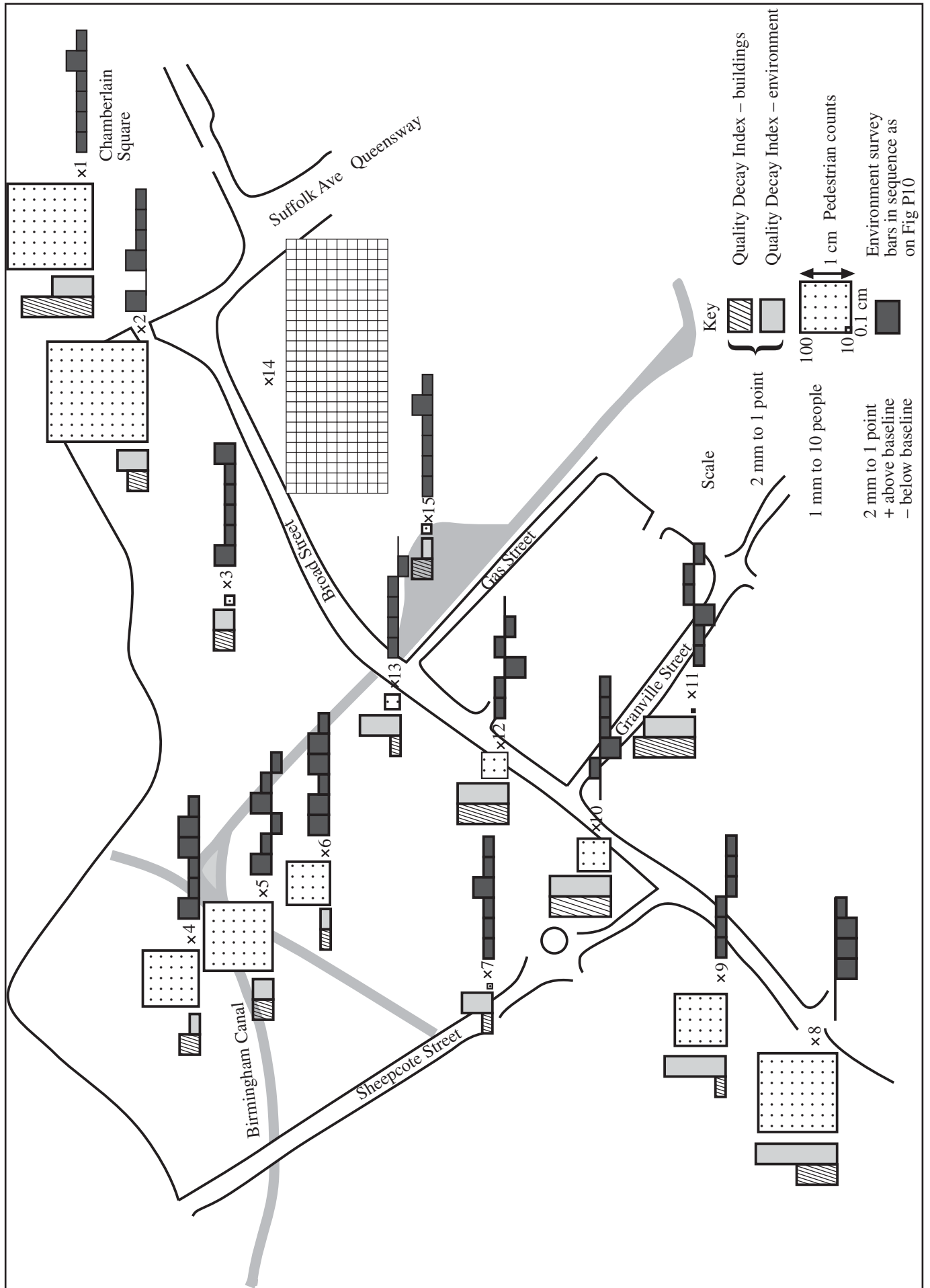


Figure 7

Reliability

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Improvements and Extensions

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(10 marks)

$\frac{10}{10}$

Turn over ►

5 Enquiry Related Issues

- (a) **Photographs 16 and 17 on Figure P5** show two residential areas in the International Convention Centre Broad Street quarter of Birmingham’s central area.
With reference to the residential areas shown in the photographs, suggest an expected/alternative hypothesis, question, problem or issue which could be investigated and justify this as an extension to this enquiry.

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(5 marks)

THERE ARE NO QUESTIONS PRINTED ON THIS PAGE