



NATIONAL
Junior College

National Junior College
JC2/IP4 Preliminary Examinations 2008

GEOGRAPHY
Higher 1

8812/01
20 Aug 2008

Additional Materials : 1 insert
World Outline Map

3 hours

READ THESE INSTRUCTIONS FIRST

Section A

Answer **four** questions.

Section B

Answer **one** question.

Section C

Answer **one** question.

Insert 1 contains all the Figures referred to in the question paper.

Diagrams and sketch maps should be drawn whenever they serve to illustrate an answer.

The world outline map may be annotated and handed in with relevant answers.

You are reminded of the need for good English and clear presentation in your answers.

At the end of the examination, fasten all your answer scripts securely together.

The number of marks is given in brackets [] at the end of each question or part question.

This document consists of 6 printed pages and 1 blank page.

Section A

Answer **four** the questions in this section.

Questions 1, 2 and 3 carry 12 marks and Question 4 carries 14 marks.
You should allocate your time accordingly.

Lithospheric Processes, Hazards and Management

1. Photograph A shows a form of mass movement at Holbeck Hall, Scarborough.
 - a)
 - i) Identify the type of mass movement shown in Photograph A. [1]
 - ii) Draw a labelled sketch of the main features of mass movement in Photograph A. [4]
 - b) Account for the occurrence of mass movement shown in Photograph A. [5]
 - c) Describe and explain **one** management scheme you would introduce to help reduce the hazard along this stretch of coastline. [2]

The Globalisation of Economic Activity

2. Study Table 1 which gives the top three investment partners in terms of FDI stock in Japan from 1997 and 2001. Fig. 1 shows the FDI inflows by industry from 1989 – 2000 and Fig. 2 shows the FDI outflows by industry from 1989 – 2000.
 - a) Give the meaning of *FDI* and *decentralization of economic activities*. [2]
 - b) Based on the data in Fig. 1 and 2, describe the trends in FDI inflows and outflows in Japan. [4]
 - c) Using Table 1, Fig. 1 and Fig. 2, account for the changes in the FDI inflows and outflows in Japan. [6]

Hydrologic Processes, Hazards and Management

3 Either Study Fig. 3A and 3B and Photograph B.

Fig. 3A shows the relationship between channel slope and bankfull discharge on braided and meandering streams in the USA.

Fig.3B shows the relationship between channel slope and sediment load for the same two types of stream.

Photograph B shows meandering on the River Cuckmere, Sussex, UK.

- a) i) Using Fig. 3B, give the approximate threshold values of sediment load and channel slope for braided streams. [2]
- ii) Briefly describe the differences between braided and meandering streams that are suggested in Figs. 3A and 3B. [4]
- b) The meandering course of the River Cuckmere has been straightened. Suggest how far Photograph B helps to understand the decision to straighten the river. [6]

Urban Issues and Challenges

3 Or Study Fig. 4 which shows demographic (ie. Population) data for the Bristol area. The data for the city of Bristol is shown at *ward* level, while the data for areas outside the city is shown at *district council* level. Map E provides an indication of the most deprived wards in the city.

- a) Is there any evidence to either support or reject the presence of the following processes in the city:
 - i) Counterurbanisation
 - ii) Inner city decline
 - iii) Gentrification [3]
- b) Suggest two additional data you would need to be certain whether or not these processes are occurring in the city. [4]
- c) Account for any two urban processes which account for population change within Bristol. [5]

Lithospheric Processes, Hazards and Management and Hydrologic Processes, Hazards and Management

4 Either Fig. 5 shows the positive and negative connections between the subsystems of slopes of a valley side and the river channel. Fig. 6 shows a cross-section (S-T) of the river channel.

- a) Describe the connections between the river channel subsystem and the valley slope subsystem. [4]
- b) Suggest how the processes of slope transport and river erosion might affect the angle of the valley sides. [5]
- c) Outline how:
 - i) you would calculate the hydraulic radius for the cross-section (S-T) and
 - ii) you would measure the discharge at S-T shown in Fig. 6. [5]

The Globalisation of Economic Activity and Urban Issues and Challenges

4 Or Fig. 7 shows a model of the post-industrial global city.

- a) Explain the terms 'urban sprawl' and 'edge cities'. [2]
- b) Describe the location of the low-income residential areas shown in Fig. 7. [3]
- c) Give two reasons for the role of the central city (CBD) as a 'Global Command Centre'. [4]
- d) Explain how you might undertake primary fieldwork to investigate the rate of decentralization of the global city in Fig. 7. [5]

Section B Physical Geography

Answer **one** question from this section.

Lithospheric Processes, Hazards and Management

- 5 Either (a)** Fig. 8 shows the volcanoes that form a continental volcanic arc in the Cascade Range of North America.
Describe and account for the distribution and formation of the Cascade volcanoes. [9]
- (b)** Explain the effects that erupted hazardous materials can have upon people in areas surrounding volcanoes. Why has our knowledge of plate tectonics not significantly increase our ability to manage volcanic hazards? [16]
- 5 Or (a)** Define the term 'tectonic plate'. Using diagrams, show how fold mountain building occurs at tectonic plate margins. [9]
- (b)** Identify and suggest reasons for the contrasts between weathering processes in tropical regions. Assess the extent to which these weathering processes contribute to the formation of **either** granite **or** limestone landforms in the tropical environments. [16]

Hydrologic Processes, Hazards and Management

- 6 Either (a)** With the aid of a labelled diagram, explain how rivers transport the sediment load. [9]
- (b)** With reference to examples, discuss how the abstraction (removal) and storage of water by humans affect flows and stores within a drainage basin. [16]
- 6 Or (a)** State and explain **two** relationships that exist between a river's characteristics and the nature of its catchment area. [9]
- (b)** What are the natural causes of river floods? Assess the relative importance of management strategies like (i) abatement, (ii) protection and (iii) adjustment in mitigating river floods. You should use specific examples to illustrate your answer. [16]

Section C Human Geography

Answer **one** question from this section.

The Globalisation of Economic Activity

- 7 Either** (a) Explain why HDI may be regarded as one of the best indicators of the development gap. [9]
- (b) With reference to examples, consider the extent to which the new international division of labour (NIDL) has been responsible for the global shift of economic activities in the last 15 years. [16]
- 7 OR** (a) With the help of one or more located examples, describe how small-medium enterprises (SMEs) act to attract investments and outline why governments may support them. [9]
- (b) The supranational bodies are the greatest influence on the economy of a country or a regional grouping of countries. To what extent do you agree with the statement? [16]

Urban Issues and Challenges

- 8 Either** (a) Describe the factors that may contribute to social segregation within cities. [9]
- (b) With reference to one or more cities you have studied, evaluate the success of government policies in re-imaging the city. [16]
- 8 OR** (a) Identify the factors which may help to explain the form of the transition zone within a city such as that shown in Fig. 9. [9]
- (b) "Primate cities are only associated with LDCs." To what extent do you agree with this statement. [16]



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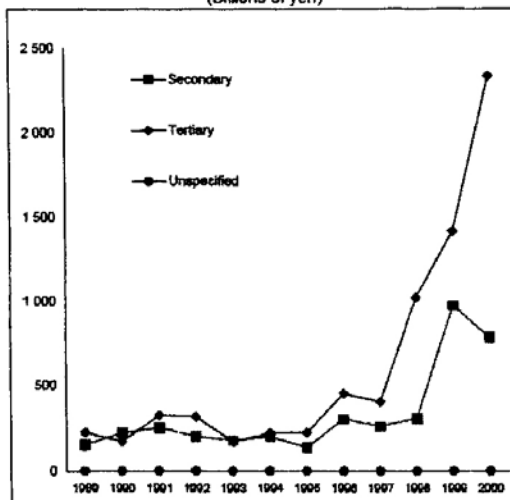
This insert contain all the Figures and the 2 Photographs referred to in the Questions.

This document consists of 8 printed pages and 0 blank pages.

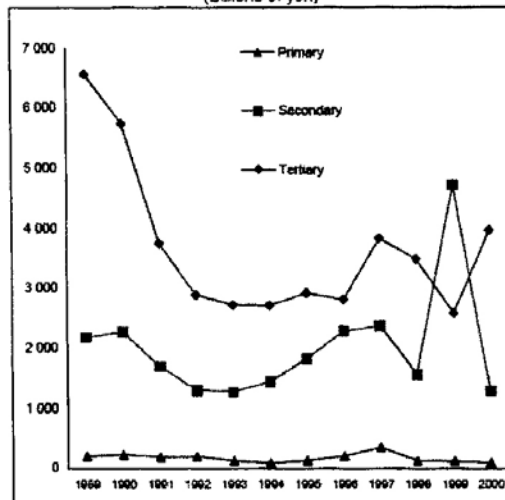
Table 1, Fig. 1 and Fig. 2 for Question 2

Table 1: The top three investment partners in terms of FDI stock, 1997 and 2001.

Year	Inward FDI stock	Outward FDI Stock
1997	United States (50%), United Kingdom (9%), Germany (8%)	United States (38%), United Kingdom (11%), China (8%)
2001	United States (37%), Netherlands (15%), France (14%)	United States (47%), United Kingdom (11%), Netherlands (6%)

Figure 1 FDI inflows by industry^a, 1989-2000
(Billions of yen)

a Based on approval/notification data.

Figure 2 FDI outflows by industry^a, 1989-2000
(Billions of yen)

a Based on approval/notification data.

Photograph A



Fig. 3A and Fig. 3B for Question 3 Either

Fig. 3A for Question 3

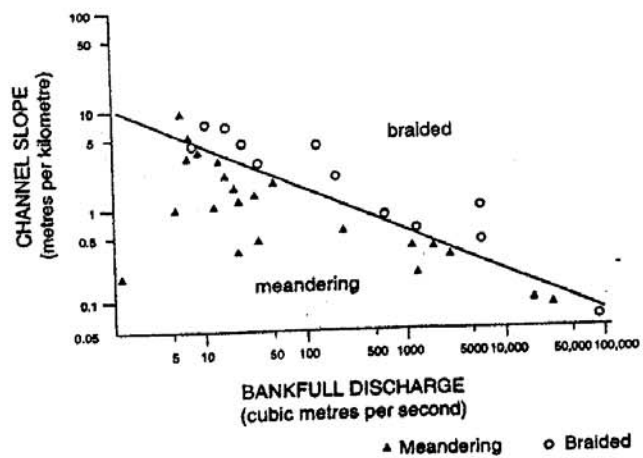


Fig. 3B for Question 3

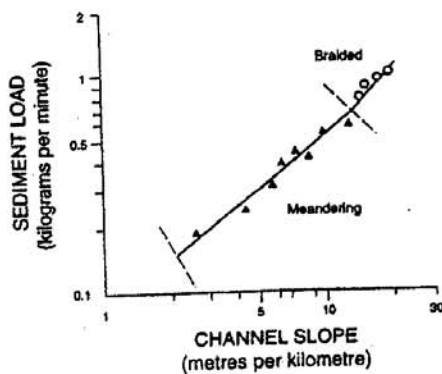


Fig. 4 for Question 3 Or

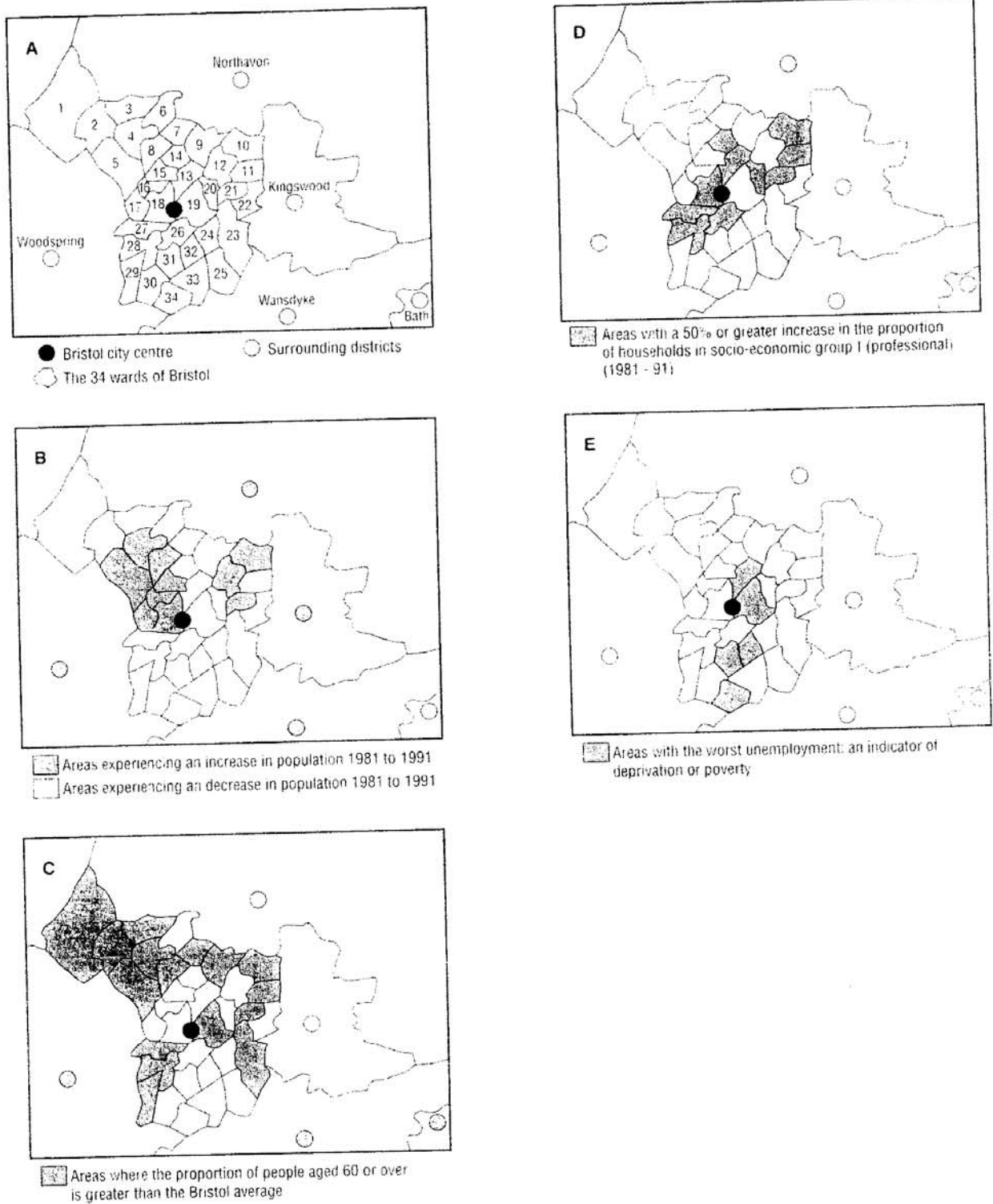


FIGURE 4 Population data for Bristol: Map A, the Bristol wards; Map B, population change 1981 to 1991; Map C, percentage population aged over 60; Map D, percentage of households in socio-economic group 1 (professionals); Map E, unemployment

Fig. 5 and Fig. 6 for Question 4 Either

Fig. for Question

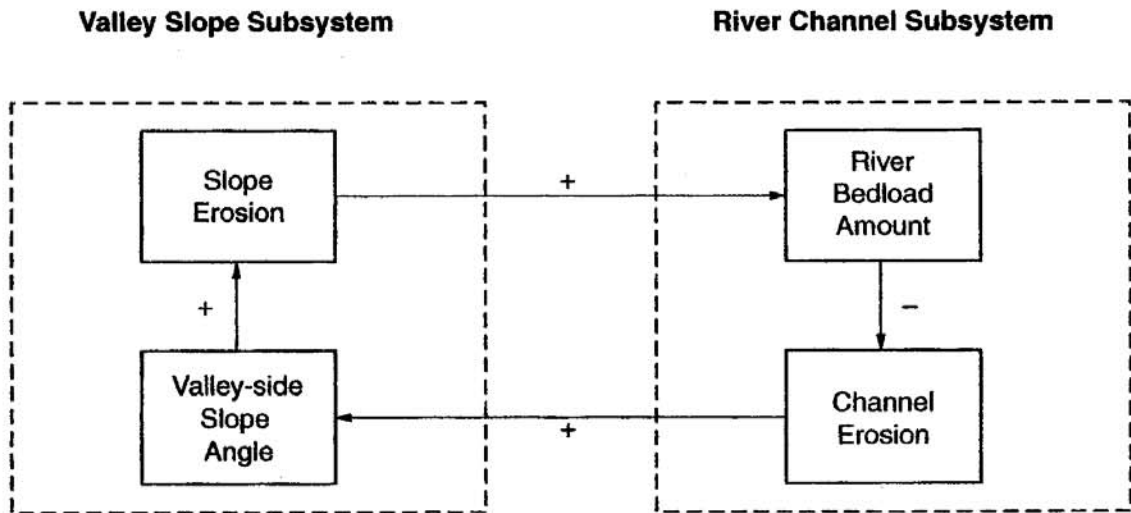


Fig. 6

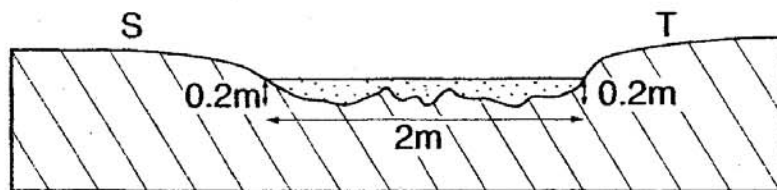
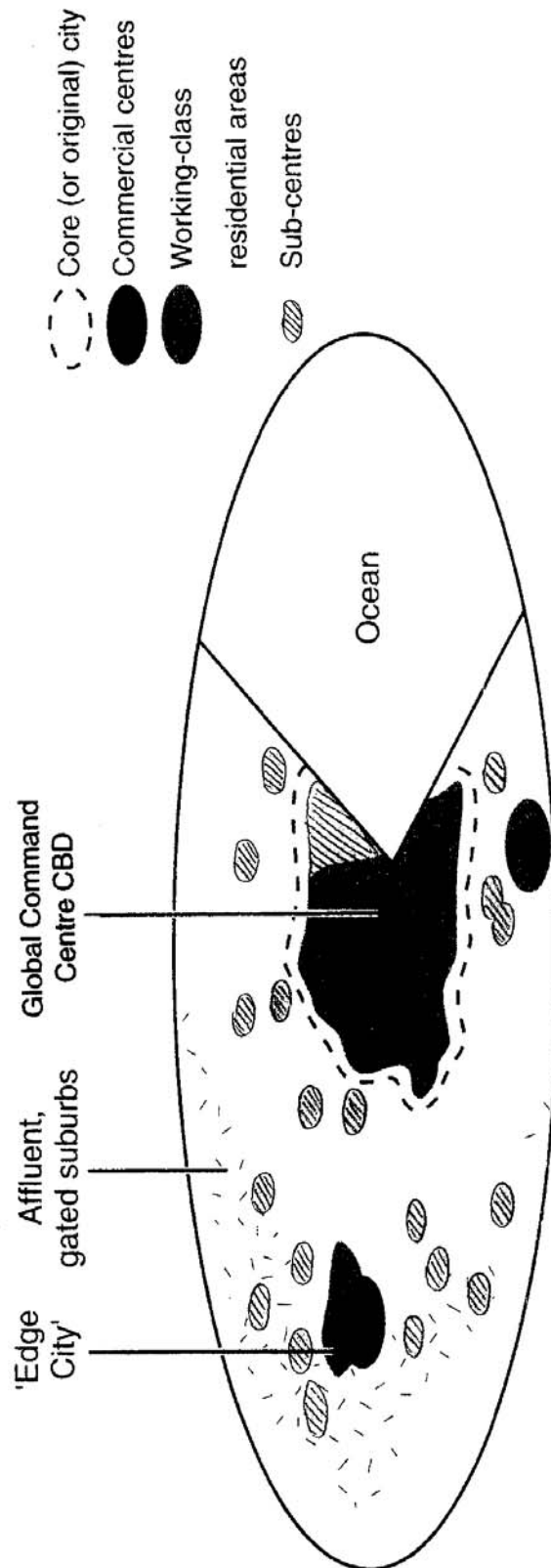
*not to scale*

Fig. 7 for Question 4 Or



Source: Graham and Marvin (1996: 334)
 From T Hall (1998) Urban Geography, Routledge

Fig 8 for Question 5 Either

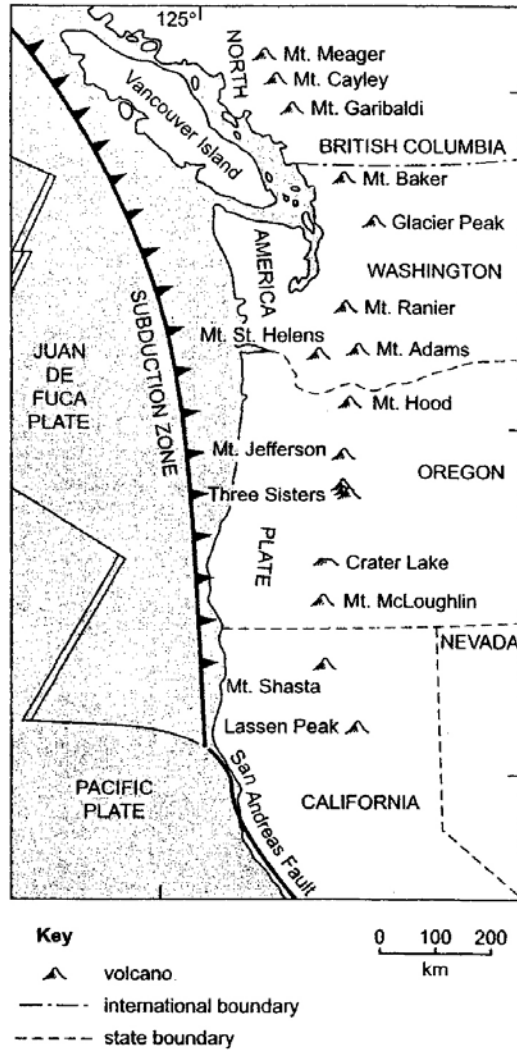


Fig. 9 for Question 8 Or

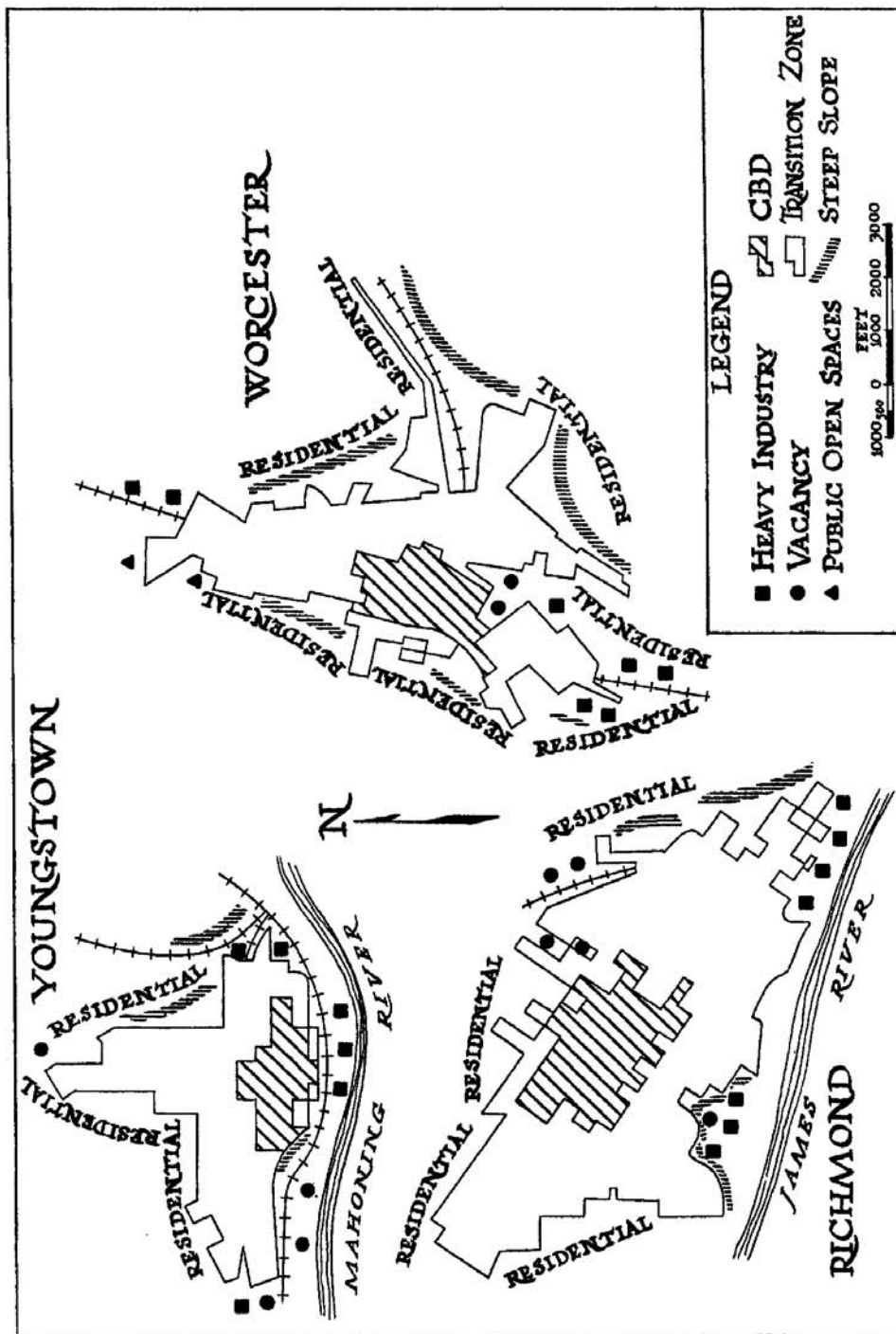


Figure 9: Diagrams of location of transition zone in selected cities in the UK.