

**GEOGRAPHY  
HIGHER LEVEL  
PAPER 2**

Tuesday 16 November 2004 (morning)

2 hours 30 minutes

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**INSTRUCTIONS TO CANDIDATES**

- Do not open this examination paper until instructed to do so.
- Answer four questions:
  - two from Section A;
  - one from Section B;
  - one other from any Section (A, B or C).
- Each question must be selected from a different theme.

### SECTION A

Answer at least **two** questions from this section and each question must be taken from a different theme. (Do not answer both an essay and a structured question on the same theme.)

Case studies and examples should be used to illustrate answers and, where appropriate, they should be specifically located. Include well drawn, large, relevant maps, sketches, tables and diagrams as often as applicable.

#### A1. Drainage basins and their management

*Either*

**(a) Essay**

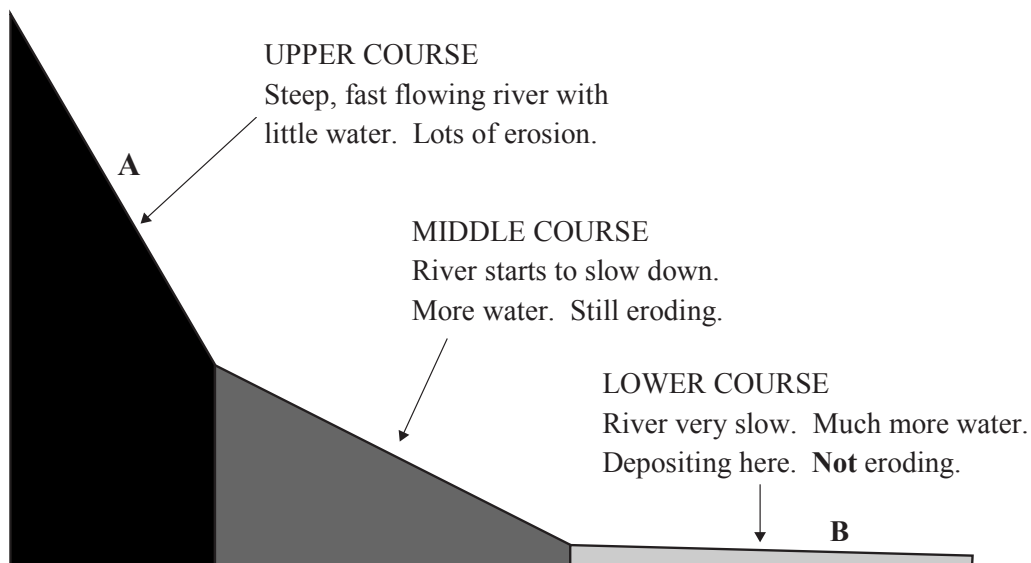
Referring to **at least two** river basins, discuss the extent to which management schemes create both benefits and problems.

[20 marks]

*Or*

**(b) Structured question**

The diagram below shows a traditional model of a long profile of a river.



- (i) Evaluate the accuracy of the information shown in the diagram. [6 marks]
- (ii) Describe and explain in detail, **one** typical fluvial landform located at **A** and **one** at **B**. [6 marks]
- (iii) Using examples, explain how river basin management at **A** on the diagram can have consequences for people living near **B**. [8 marks]

**A2. Coasts and their management**

*Either*

**(a) Essay**

Using examples of contrasting coastlines, evaluate the different types of strategies that may be employed by humans to manage them. *[20 marks]*

*Or*

**(b) Structured question**

*If you choose to answer this question refer to the map of West Africa in the Resources Booklet.*

- (i) Using the map of West Africa, describe and explain the natural processes operating along this section of coastline and the resultant coastal features. *[6 marks]*
  
- (ii) Explain how the action of humans has altered natural processes operating on this section of coastline. *[6 marks]*
  
- (iii) Using examples, evaluate the various methods that can be used to protect depositional coastlines from erosion. *[8 marks]*

### A3. Arid environments and their management

*Either*

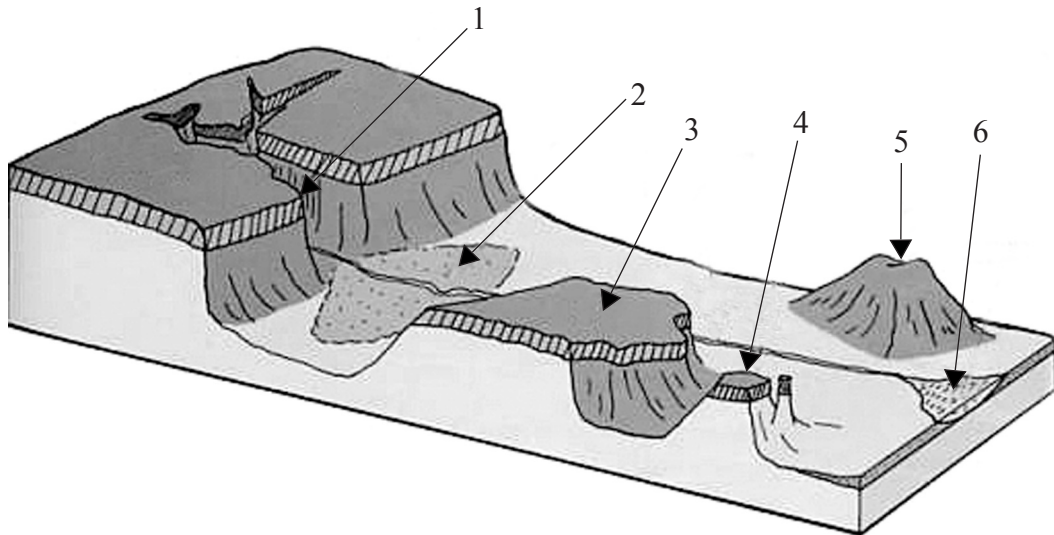
**(a) Essay**

Referring to an area of your choice, examine the causes and consequences of desertification. [20 marks]

*Or*

**(b) Structured question**

The diagram below shows a typical desert landscape where water is a major agent of erosion. The landforms are numbered 1 to 6.



[Source: <http://ihouse.hkedcity.net/~hm1203/biosphere/desert-land.htm>]

- (i) Identify, by naming or describing, **three** of the landforms shown in the diagram. [3 marks]
- (ii) Referring to the diagram, explain the role of water in the formation of the landscape. [7 marks]
- (iii) Using examples of your choice, discuss the conflicts that arise from increasing competition for water resources in arid or semi-arid areas. [10 marks]

**A4. Lithospheric processes and hazards**

*Either*

**(a) Essay**

Explain the variations in distribution, characteristics and impacts of volcanic hazards. *[20 marks]*

*Or*

**(b) Structured question**

*If you choose to answer this question refer to the photograph in the Resources Booklet.*

The photograph shows a landslide in the state of Colorado in the Rocky Mountains, USA.

- (i) Using evidence provided by the photograph, identify **three** factors which may have caused this landslide to occur and give reasons in each case. *[6 marks]*
  
- (ii) Select **two** types of weathering and explain how they may contribute to slope instability in general. *[6 marks]*
  
- (iii) Explain why the global frequency of hazardous mass movements has increased in recent decades. *[8 marks]*

**A5. Ecosystems and human activity**

*Either*

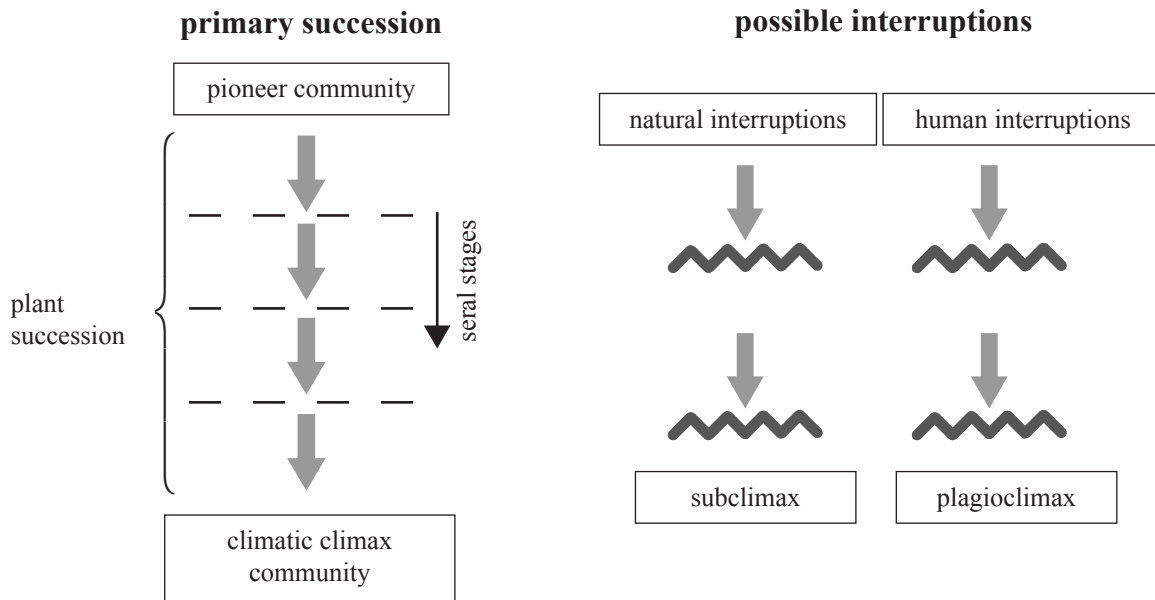
**(a) Essay**

Explain how human activity can disturb the equilibrium of an ecosystem and describe the strategies humans can adopt to ensure appropriate management. [20 marks]

*Or*

**(b) Structured question**

The diagram below shows a seral progression with some possible physical and human interruptions.



- (i) Define the following terms: *plant succession*, *pioneer community* and *climatic climax community*. [3 marks]
- (ii) Using the diagram, explain how plant successions can be affected by natural and human interruptions. [7 marks]
- (iii) Referring to a plant succession you have studied, explain the concepts of invasion, competition and dominance. [10 marks]

**A6. Climatic hazards and change**

*Either*

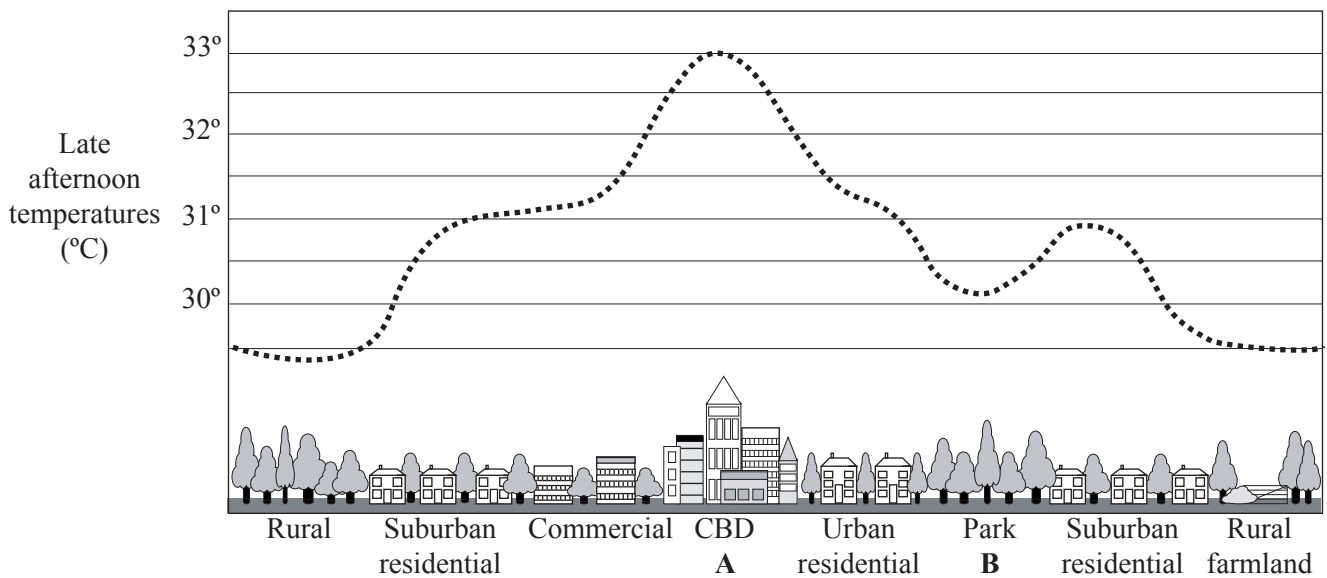
**(a) Essay**

Examine the causes of the enhanced greenhouse effect and assess the difficulties in reducing its impacts. *[20 marks]*

*Or*

**(b) Structured question**

The diagram below shows the urban heat island effect in a large city. The time is late afternoon in summer and the weather conditions are anticyclonic.



[Source: [www.energy.ca.gov/coolcommunity/flyover.html](http://www.energy.ca.gov/coolcommunity/flyover.html)]

- (i) Describe and account for the temperature differences between points **A** (CBD) and **B** (Park) on the diagram. *[6 marks]*
- (ii) Explain how the following might cause variations in the intensity of this city's heat island:
  - (a) a change in local weather conditions
  - (b) a different time of day
  - (c) a different season. *[6 marks]*
- (iii) Using examples, describe and explain how human activities (excluding urbanization) can modify microclimates in rural areas. *[8 marks]*

## SECTION B

*Answer at least **one** question from this section. If more than one question is selected from this section, each must be taken from a different theme. (Do not answer both an essay and a structured question on the same theme.)*

*Case studies and examples should be used to illustrate answers and, where appropriate, they should be specifically located. Include well drawn, large, relevant maps, sketches, tables and diagrams as often as applicable.*

### **B7. Contemporary issues in geographical regions**

*Either*

#### **(a) Essay**

Using specific examples, examine the problems faced in defining a region. Evaluate the usefulness of the regional concept. *[20 marks]*

*(This question continues on the following page)*

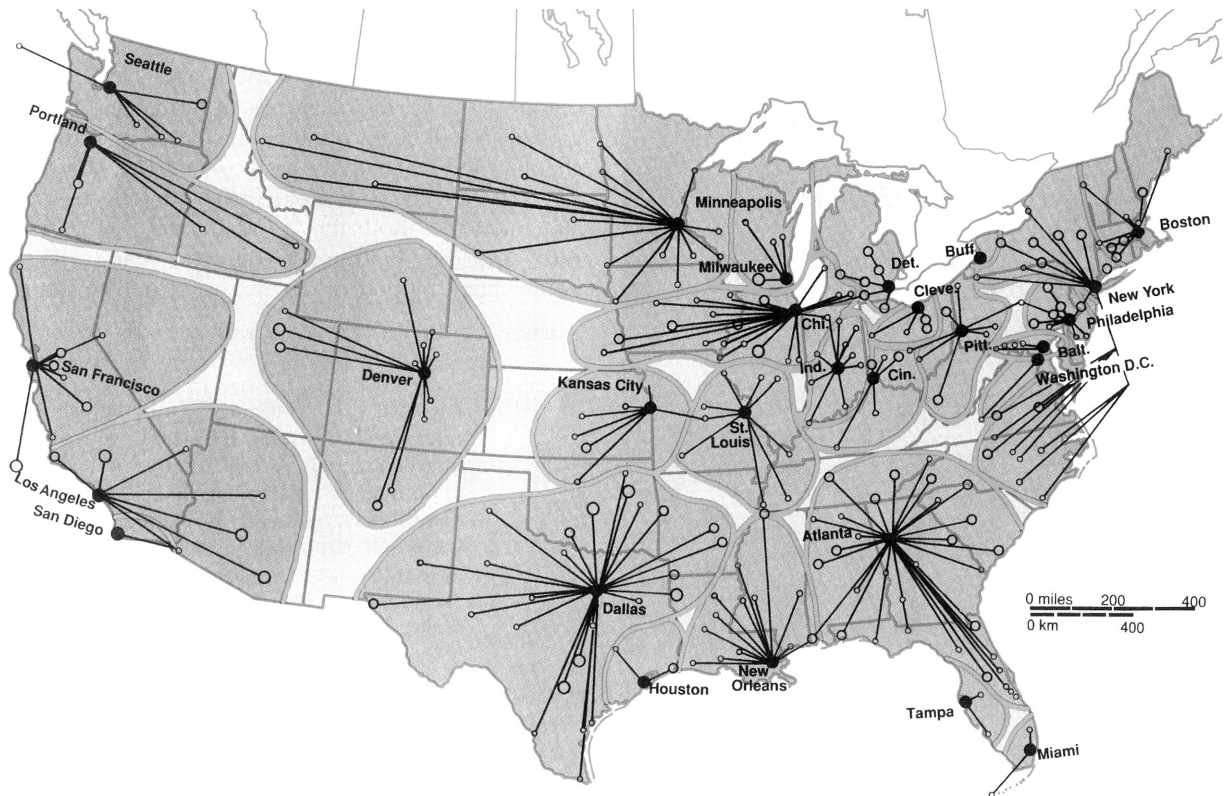


(Question B7 continued)

Or

(b) Structured question

The map shows regions in the USA which are defined by linkages or interactions between major central cities and smaller towns.



[Source: Arthur Getis, et al., *Introduction to Geography* 6th edition (1998); redrawn by permission from John R Borchert, *Annals of the Association of American Geographers* (1972)]

- (i) Suggest **two** specific economic activities that the linkages might represent. [2 marks]
- (ii) Explain why the regions shown on the map **either** might **or** might not be considered functional regions. [3 marks]
- (iii) Select a region you have studied. Draw a large, annotated map of this region to locate it and identify its distinguishing characteristics. [5 marks]
- (iv) Examine the extent to which the contemporary geographical issues of your chosen region result from its physical geography. [10 marks]

**B8. Settlements**

*Either*

**(a) Essay**

Using examples, examine the reasons why re-urbanization as opposed to suburbanization has become a common process in some parts of the world. *[20 marks]*

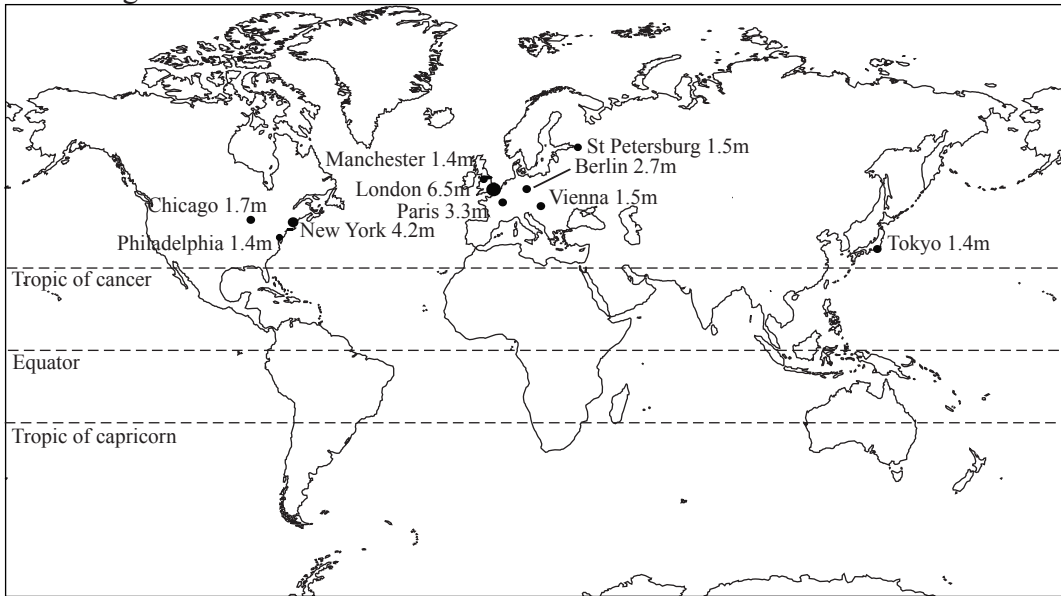
*(This question continues on the following page)*

(Question B8 continued)

Or

**(b) Structured question**

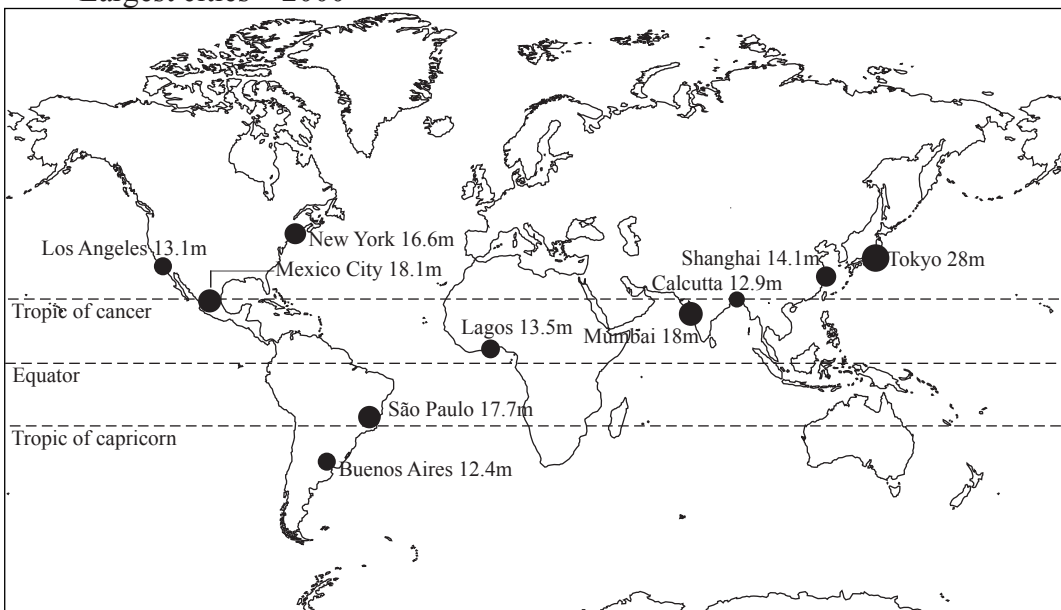
**Largest cities – 1900**



Approximate population sizes as a guide

- 2 million
- 8 million
- 16 million
- 30 million

**Largest cities – 2000**



- (i) With reference to the two maps above, describe the shift in the distribution of the world's largest cities between 1900 and 2000. [4 marks]
  
- (ii) Give reasons for this shift in distribution. [6 marks]
  
- (iii) Select **one** environmental, social **or** economic problem that has arisen in a rapidly growing city. Evaluate the effectiveness of any solutions applied to the problem you have selected. [10 marks]

**B9. Productive activities: aspects of change**

*Either*

**(a) Essay**

The factor of distance is no longer relevant in determining agricultural land-use patterns from the local scale to the global scale.

To what extent do you agree with this statement?

*[20 marks]*

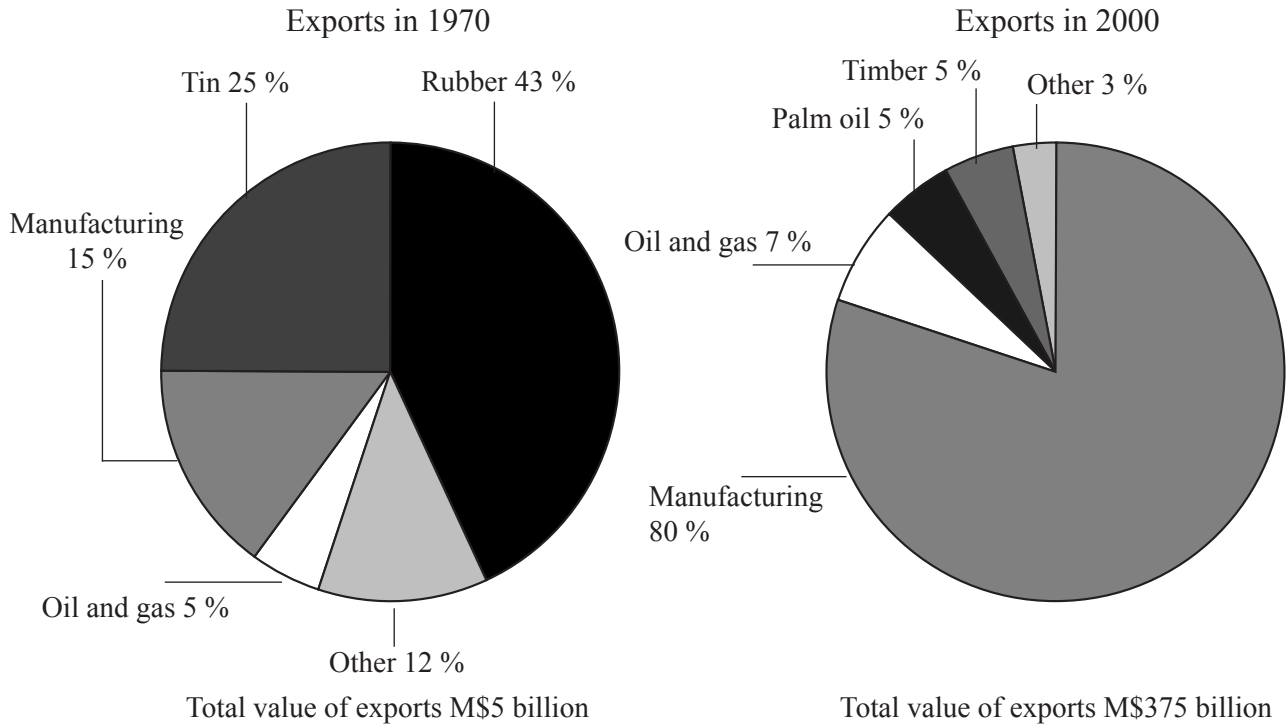
*(This question continues on the following page)*

(Question B9 continued)

Or

**(b) Structured question**

The diagrams below show the value of exports for an unnamed Asian country in 1970 and 2000.



[Source: Based on an extract from *AS Level Geography*, Bowen and Pallister, Heinemann]

- (i) Identify **three** characteristics that show how the economy of the country in 1970 is typical of a LEDC. [3 marks]
  
- (ii) Suggest reasons why a country, such as the one shown in the diagram, moved into manufacturing industry so successfully. [5 marks]
  
- (iii) Using specific examples, examine the reasons why companies in the manufacturing sector choose to relocate at an international scale. [12 marks]

**B10. Globalization**

*Either*

**(a) Essay**

Mass tourism always brings social and economic benefits to the host population in the countries of destination.

Evaluate this statement.

*[20 marks]*

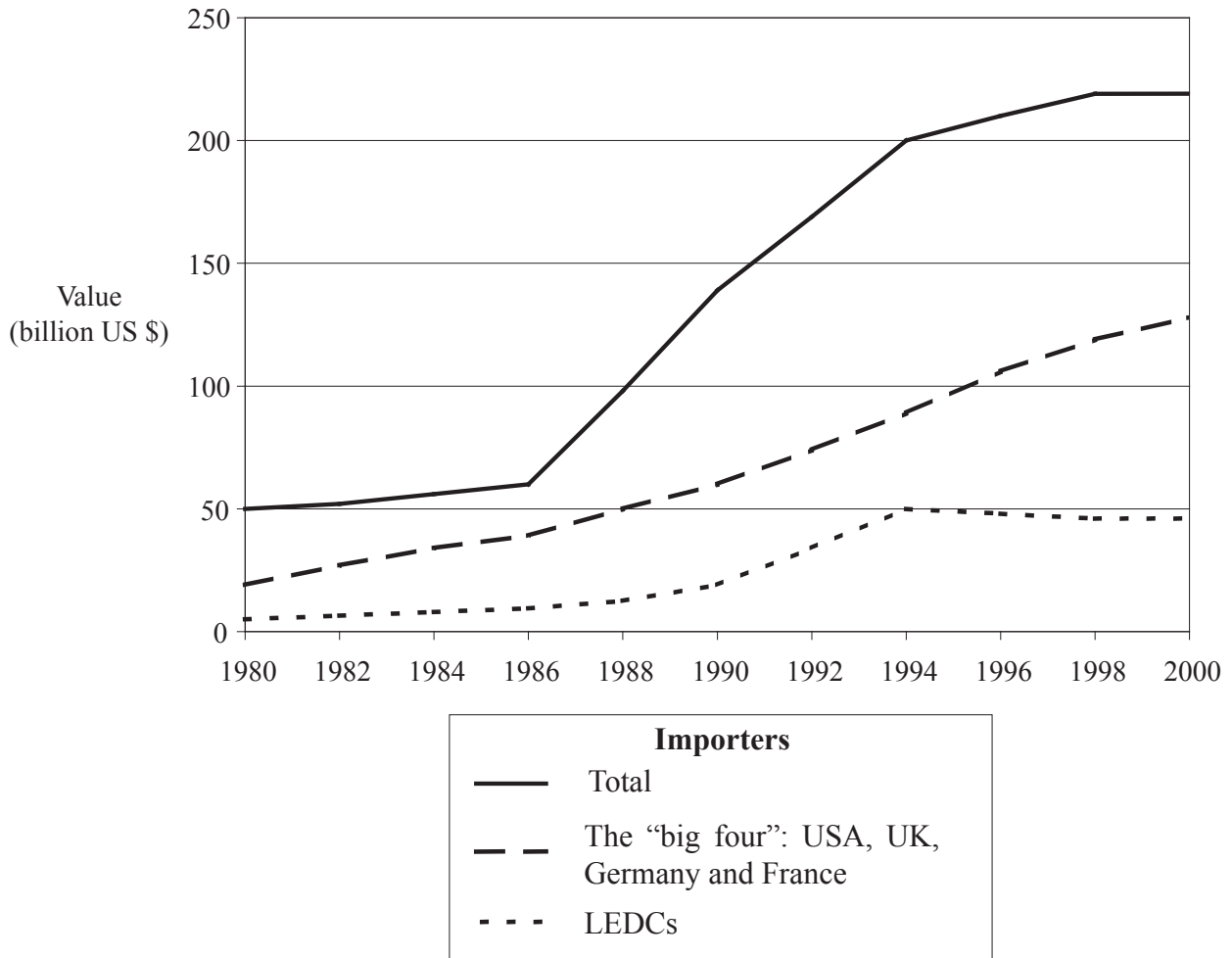
*(This question continues on the following page)*

(Question B10 continued)

Or

**(b) Structured question**

The diagram below shows the value of world imports of cultural goods (in billions of dollars) for the period 1980–2000. (Cultural goods: these are defined as films, books, television, journals, newspapers, computer software, games and sports goods.)



[Source: UNESCO]

- (i) Refer to the diagram. Explain why the **total** value of cultural imports is greater than the combined total values of the "big four" countries (USA, UK, Germany and France) and the LEDCs. [2 marks]
- (ii) Describe the trends shown in the diagram. [3 marks]
- (iii) Provide an explanation for these trends. [5 marks]
- (iv) Referring to examples, discuss the positive **and** negative impacts of imported cultural goods on LEDCs. [10 marks]

### SECTION C

*If you choose to answer this question, use the topographic map extract and the aerial photograph in the Resources Booklet to answer **all** parts.*

#### **C11. Topographic mapping**

The map extract and aerial photograph show the area around Tenby, a small Welsh resort town in the west of the UK. Tenby, historically, was an important commercial and fishing harbour, but today it is largely dependent on tourism.

The Pembrokeshire National Park, in which Tenby is located, is an Area of Outstanding Natural Beauty and is renowned for its coastal path which is over 200 km in length.

The contour interval is 5 metres. The scale is 1:25 000.

- (a) Calculate the area of the map extract in square kilometres. *[2 marks]*
  
  - (b) State the direction the camera was pointing when the photograph was taken and give some indication of the time of day at which it was taken, briefly justifying your answer. *[3 marks]*
  
  - (c) Describe the main relief features of the area and explain the influence they have on communications. *[7 marks]*
  
  - (d) Using only evidence from the map and the photograph, consider the possible town planning problems associated with further urban expansion. *[8 marks]*
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