



**GEOGRAPHY
HIGHER LEVEL
PAPER 2**

Wednesday 3 May 2006 (morning)

2 hours 30 minutes

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

To what extent do you agree that river landforms can be classified as either erosional or depositional?

[20 marks]

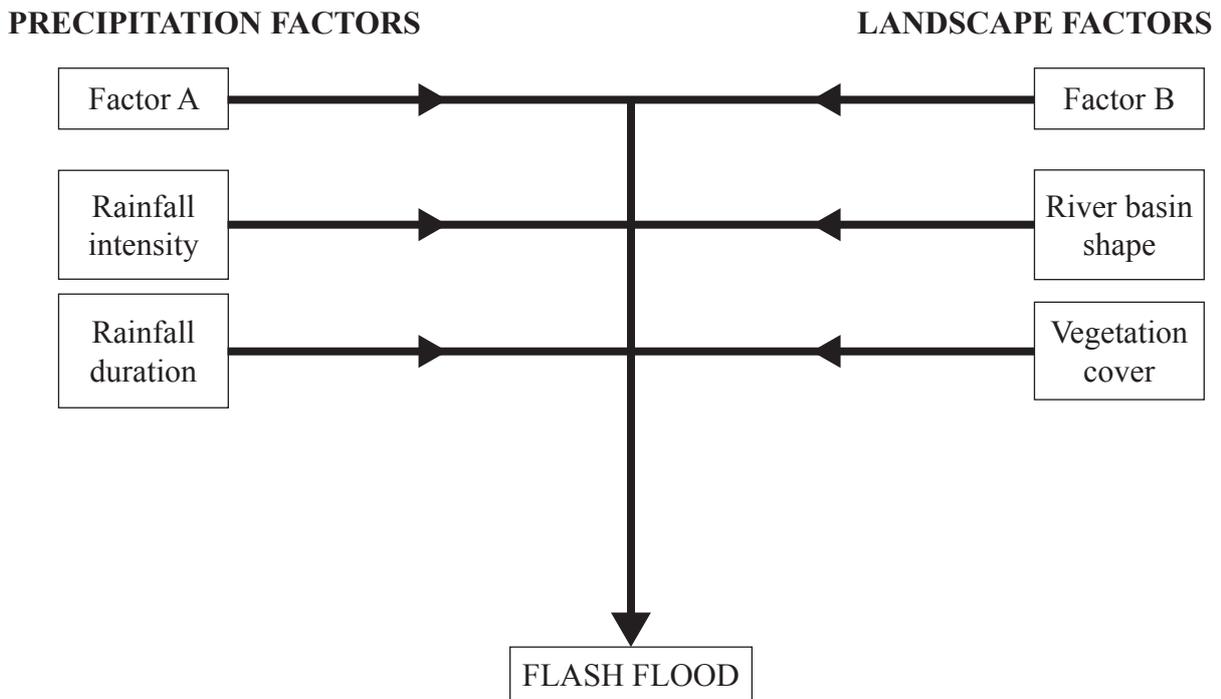
(This question continues on the following page)

(Question A1 continued)

Or

(b) Structured question

The diagram below shows factors that contribute to flash flooding.



- (i) Define the term *flash flood*. [1 mark]
- (ii) Identify factors A and B and briefly explain how they contribute to flash flooding. [4 marks]
- (iii) Explain how human activity can increase the risk of flash flooding. [5 marks]
- (iv) Referring to **one** specific case study, assess the effectiveness of water management strategies. [10 marks]

A2. Coasts and their management

Either

(a) Essay

Referring to examples, examine how human activity affects erosional processes and landforms in coastal areas.

[20 marks]

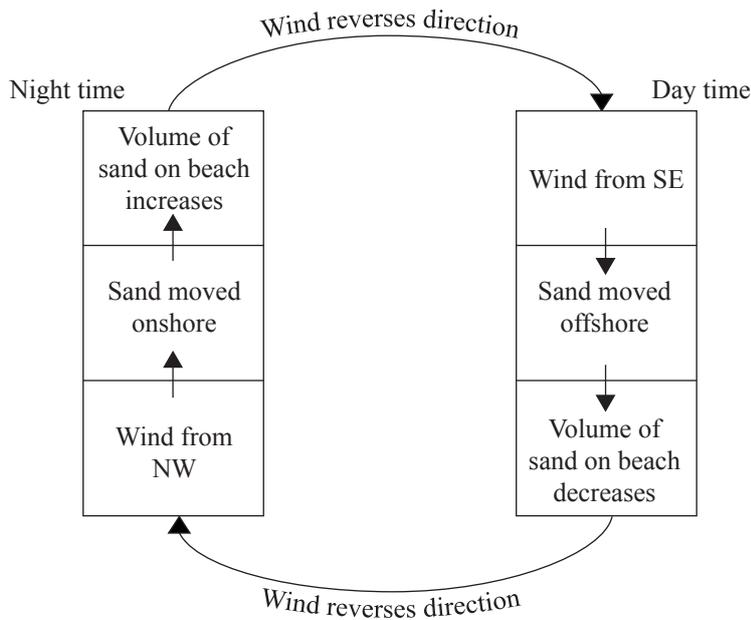
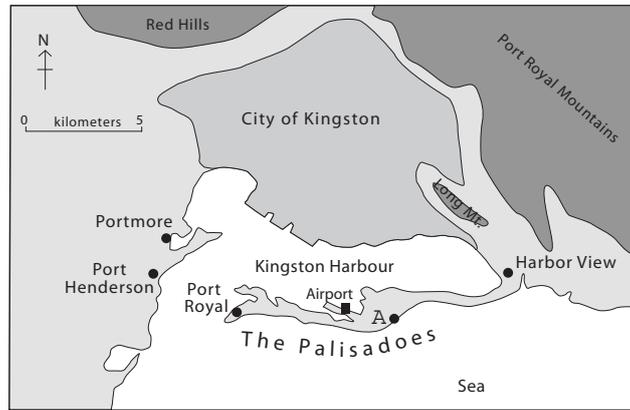
(This question continues on the following page)

(Question A2 continued)

Or

(b) Structured question

The map shows the coastline near Kingston on the island of Jamaica. The diagram shows how the beach at point A on the map changes in response to different conditions.



[Source: M D Hendry, (1983), Caribbean Geography Vol 1 # 1 (May 1983)]

- (i) State the name of the landform represented by the Palisadoes (shown on the map). [1 mark]
- (ii) Provide a possible explanation for the formation of the Palisadoes. [4 marks]
- (iii) Referring to the diagram, explain the changes which occur on the beach at point A during a typical 24-hour period. [5 marks]
- (iv) Referring to examples, evaluate the coastal management strategies that may be used in low-lying coastal areas. [10 marks]

A3. Arid environments and their management

Either

(a) Essay

“In the centre of deserts, wind action is dominant. On the margins of deserts, the action of water is dominant.”

Evaluate these statements with reference to arid and semi-arid landforms. *[20 marks]*

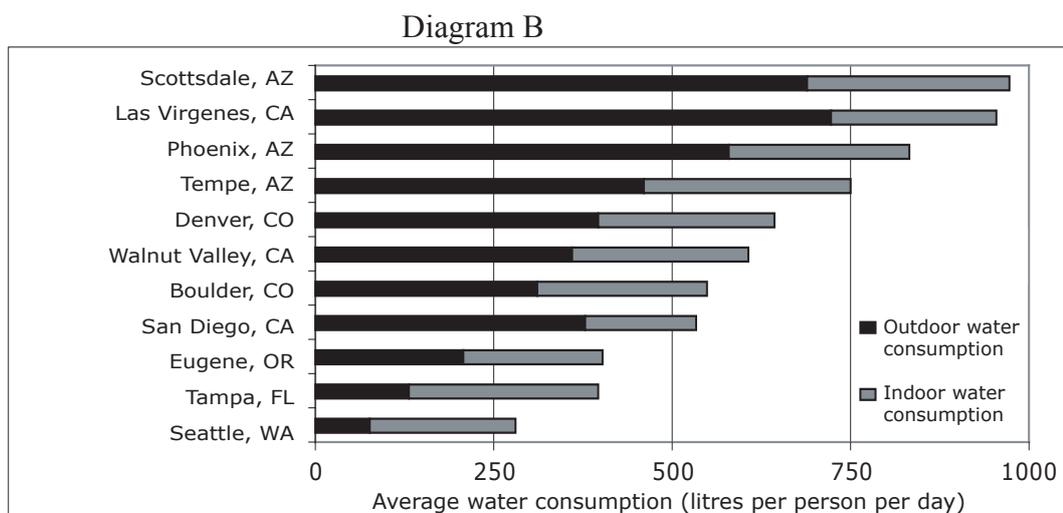
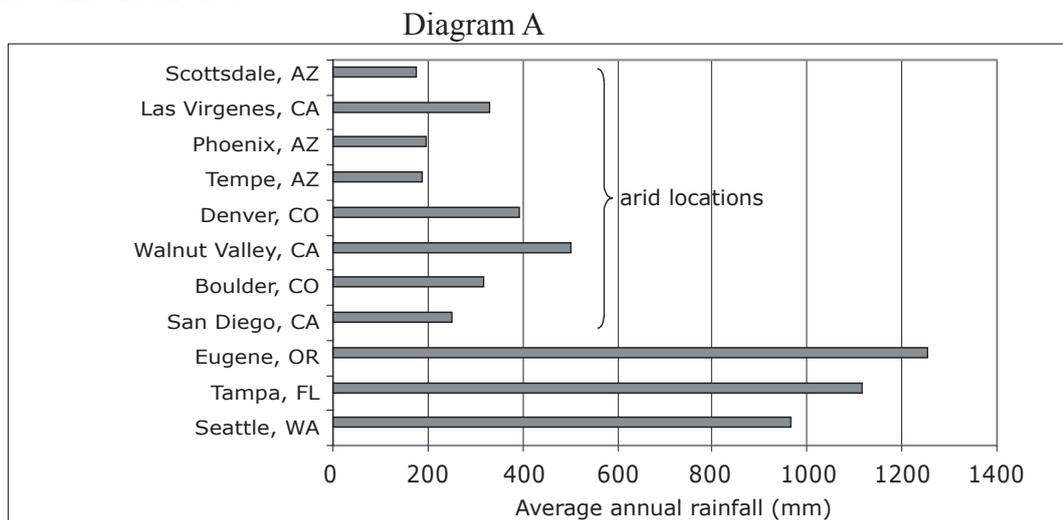
(This question continues on the following page)

(Question A3 continued)

Or

(b) Structured question

Diagram A shows the rainfall for a number of US urban areas, some of which are located in arid areas. Diagram B shows the outdoor and indoor water consumption in litres per person per day for the same urban areas.



[Source: P W Mayer, W B DeOreo, *et al.*, (1999) *Residential End Uses of Water*]

- (i) Describe the relationship between the set of values in Diagrams A and B. [2 marks]
- (ii) With reference to Diagram A, explain why rainfall values alone are insufficient to define aridity. [3 marks]
- (iii) Describe and give possible reasons for the water consumption patterns shown in Diagram B. [2+3 marks]
- (iv) Using **at least one** example, examine why access to water resources is an increasingly important international issue in arid regions. [10 marks]

A4. Lithospheric processes and hazards

Either

(a) Essay

Using examples, examine how different types of volcanic eruption have different impacts on people.

[20 marks]

Or

(b) Structured question

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

Diagrams A and B show two types of mass movement.

- (i) Define the term *mass movement*. [2 marks]
- (ii) Identify the type of mass movement taking place in each of the diagrams A and B. [2 marks]
- (iii) Explain the processes of mass movement taking place in diagram A and describe their effects on the natural and human landscape. [4+2 marks]
- (iv) Discuss the relative contribution of natural and human factors to mass movements of the type shown in diagram B. [10 marks]

A5. Ecosystems and human activity

Either

(a) Essay

“Management of ecosystems is good in theory, but does not always work well in practice.”

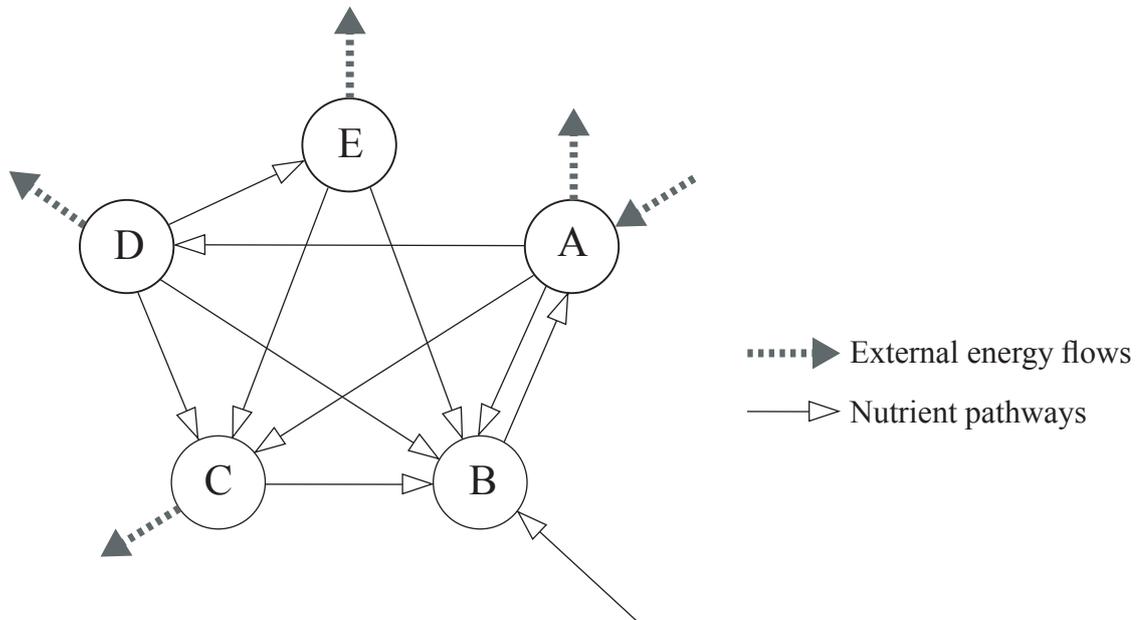
Using examples, discuss this statement.

[20 marks]

Or

(b) Structured question

The diagram below shows the external energy flows and nutrient exchanges in a simplified model of an ecosystem.



- (i) Define the term *ecosystem*. [2 marks]
- (ii) Identify the components marked A and B in the diagram. Briefly justify your identification. [2+2 marks]
- (iii) Describe the nutrient cycling in a biome of your choice using **only** an annotated diagram. [6 marks]
- (iv) Examine the limitations of a conservation strategy that has been implemented in an ecosystem of your choice. [8 marks]

A6. Climatic hazards and change

Either

(a) Essay

“The only effective responses to the problems of acid rain and the depletion of stratospheric ozone are international, and not local or national.”

Discuss this statement.

[20 marks]

Or

(b) Structured question

If you choose to answer this question refer to the satellite image in the Resources Booklet.

The satellite image shows a major weather system over part of southern Africa.

- (i) State the name of the weather system X shown in the satellite image. *[1 mark]*
- (ii) State the direction in which the weather system is moving, and justify your answer. *[1+1 mark]*
- (iii) Describe and explain the changes of weather that would be experienced as this weather system passes directly overhead. *[4+3 marks]*
- (iv) To what extent are the human responses to **one** named climatic hazard related to a country’s level of development? *[10 marks]*

Blank page

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

Examine how physical, economic and socio-political factors have caused the contemporary geographical issues in a region you have studied.

[20 marks]

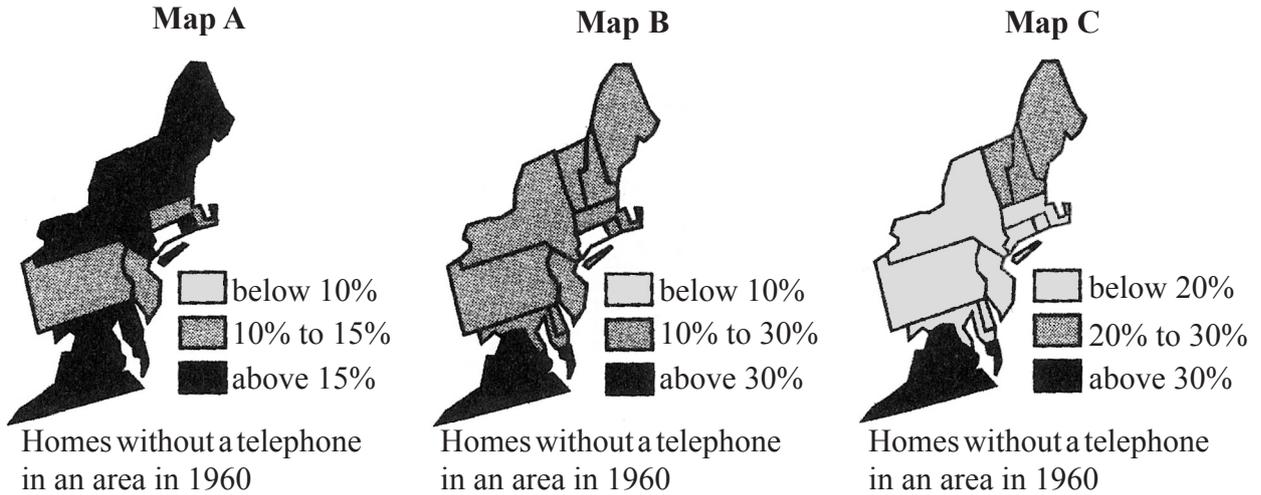
(This question continues on the following page)

(Question B7 continued)

Or

(b) Structured question

The maps show three alternative regional divisions for the distribution of homes without a telephone in an area in 1960.



(Scales deliberately omitted.)

[Source: M Monmonier, (1991) *How to lie with maps*]

- (i) Explain why the regions shown on Map A differ so greatly from the regions shown on Maps B and C. [2 marks]
- (ii) Describe **one** situation in which Map A may be more useful than Maps B and C, and justify your answer. [4 marks]
- (iii) Locate **your** local region and define its boundaries using **only** an annotated map. [4 marks]
- (iv) Referring to examples, examine whether the boundaries of a single-feature region are easier to define than the boundaries of a multi-feature region. [10 marks]

B8. Settlements

Either

(a) Essay

Analyse the main factors responsible for variations in land use and functions in the Central Business District of a large urban area. Include a map to illustrate your answer.

[20 marks]

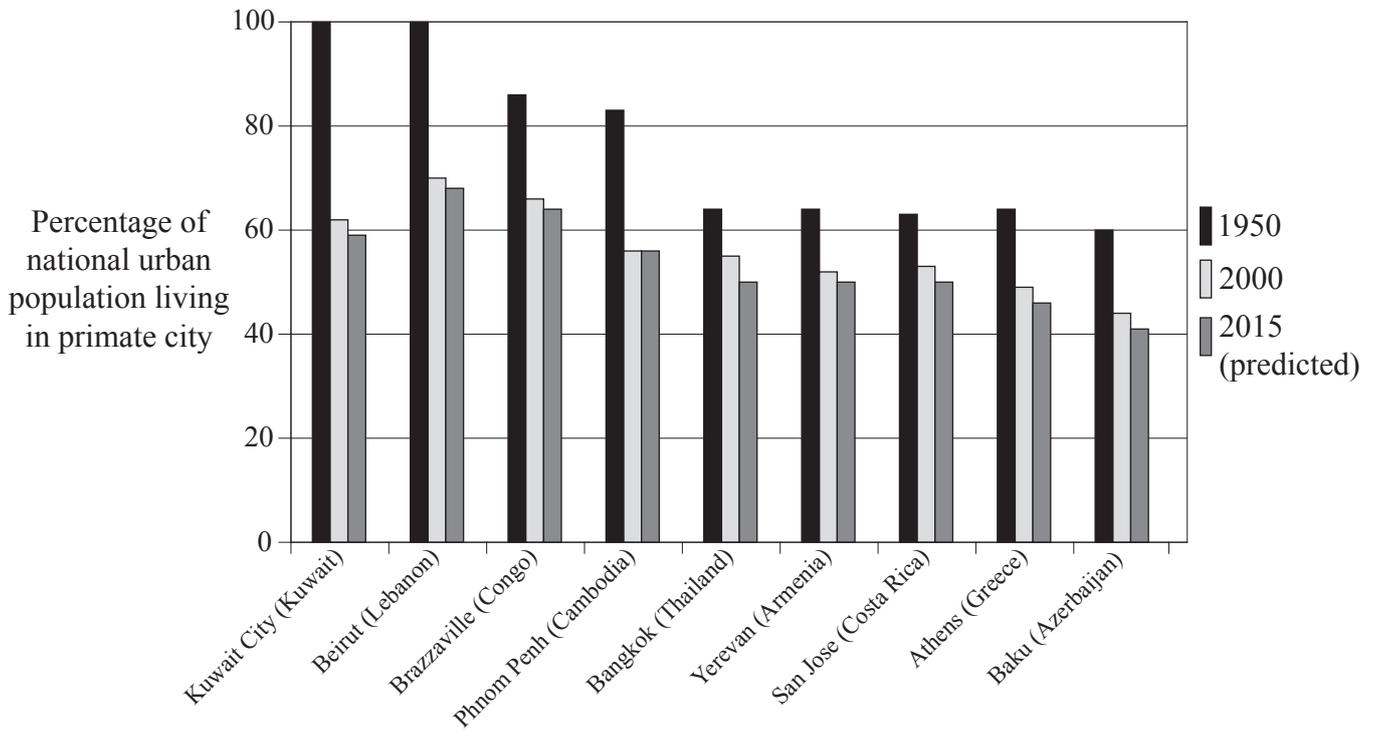
(This question continues on the following page)

(Question B8 continued)

Or

(b) Structured question

The graph below shows the percentage of national urban population living in nine primate cities in 1950, 2000 and 2015 (predicted).



[Source: UN Population Division – Urban Prospects]

- (i) Define the term *primate city*. [1 mark]
- (ii) Briefly explain **three** ways in which the data shown in the graph may be unreliable. [3 marks]
- (iii) Describe and provide possible explanations for the changes over time in the percentage of urban population living in the primate cities shown on the graph. [3+3 marks]
- (iv) Referring to examples, examine the benefits that counterurbanization brings to rural settlements. [10 marks]

B9. Productive activities: aspects of change

Either

(a) Essay

“The growth of agribusiness has been environmentally damaging and socially disruptive.”

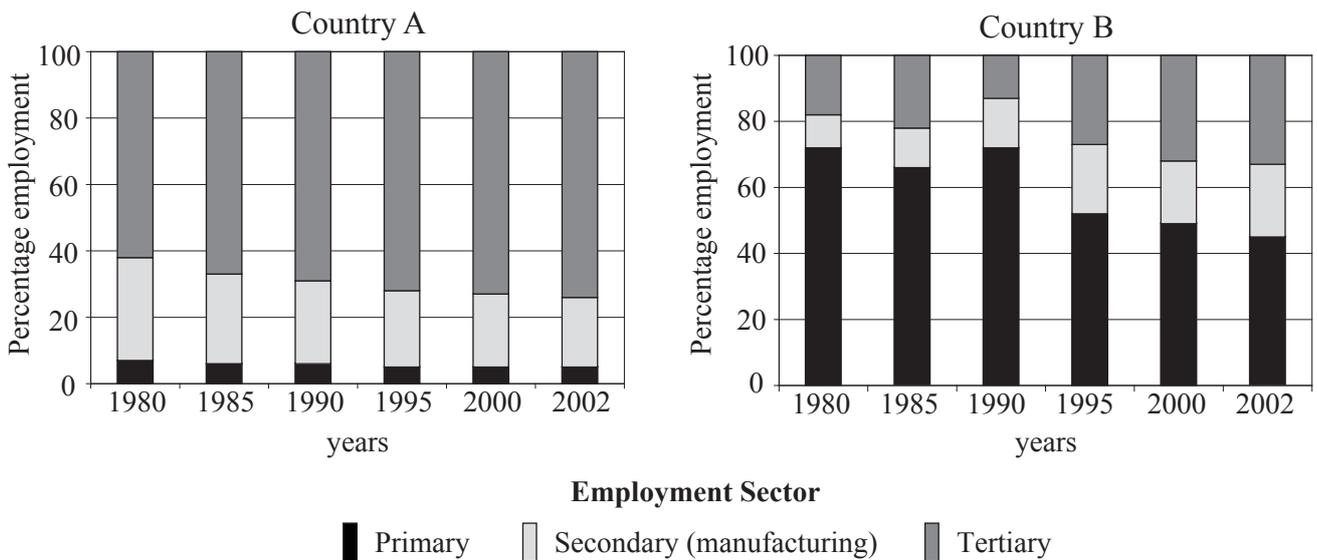
Discuss this view with reference to specific examples.

[20 marks]

Or

(b) Structured question

The graphs below show changes in the employment structure (the percentage of the working population employed in each economic sector) for two countries, A and B, between 1980 and 2002.



[Source: International Labour Office]

- (i) With reference to the data given in the graphs, classify each country according to its current level of economic development. Justify your answer. [4 marks]
- (ii) Provide possible reasons for the changes in the employment structure of **either** Country A **or** Country B. [6 marks]
- (iii) “Manufacturing industry can never be sustainable.” Evaluate this statement. [10 marks]

B10. Globalization

Either

(a) Essay

Discuss the extent to which the process of globalization has reduced physical and cultural diversity on an international scale. [20 marks]

Or

(b) Structured question

If you choose to answer this question refer to the three photographs in the Resources Booklet.

The photographs in the resources booklet and the table below show information on three types of holidays in remote destinations.

Destination	Activities / attractions	Transport during a visit	Accommodation	Cost \$US 14 days from Australia
Antarctica and South Shetland Islands	Observation of penguin breeding grounds, natural features, research stations, swimming and hot springs	Cruise ship, inflatable boat	Cruise ship	5632
Nepal, Annapurna Sanctuary Trek	Guided trekking in dense forest beneath Himalayan peaks. Visit to remote villages	Bus	Guesthouse, tent	937
Borneo 'Jungle adventure'	Trekking in rainforest, rafting on muddy rivers, deep cave exploration	Ferry, longboat, bamboo raft, bus	Hotel, longhouse, camping, hut	1200

[Source: www.exploreworldwide.com]

- (i) With reference to the photographs and the table, for each of the **three** destinations identify:
 - (a) **one** different negative impact [3 marks]
 - (b) **one** different positive impact. [3 marks]

- (ii) Explain the increasing tourist demand for holidays in remote destinations. [6 marks]

- (iii) Examine the success of strategies adopted to conserve a named tourist destination. [8 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 aerial photograph and map extract show the area around Loxton, a town with a population of 7 000 on the Murray River in South Australia. The town is the centre of an agricultural area that specializes in the cultivation of grapes, citrus and other fruit under irrigation.

The contour interval of the map extract is 10 metres and the scale is 1:50 000.

- (a) Give a possible reason for the circular (or semi-circular) patterns seen in the south of the **photograph**. *[1 mark]*
 - (b) Determine the direction of flow of the River Murray, giving a reason. *[2 marks]*
 - (c) State the 6-figure grid reference for the south-western corner of the aerial photograph. *[2 marks]*
 - (d) Describe and give possible reasons for the land use on the edge of the urban area. *[3+2 marks]*
 - (e) Using **only** an annotated map, divide the area shown on the map into regions, and describe the essential characteristics of each region. *[10 marks]*
-