



88115202



**GEOGRAPHY
HIGHER LEVEL
PAPER 2**

Friday 4 November 2011 (morning)

2 hours

INSTRUCTIONS TO CANDIDATES

- Do not open this examination paper until instructed to do so.
- Answer three questions.
- Each question must be selected from a different optional theme, A – G.
- Do not answer two questions on the same optional theme.
- Use case studies, examples, maps and/or diagrams where relevant.

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Answer **three** questions. Each question must be selected from a different optional theme. (Do not answer two questions on the same optional theme.)

Wherever possible, answers should include case studies and examples, and where relevant, large, well drawn maps and diagrams.

Optional Theme A — Freshwater – issues and conflicts

1. If you choose to answer this question refer to the diagram on page 4 in the Resources Booklet.

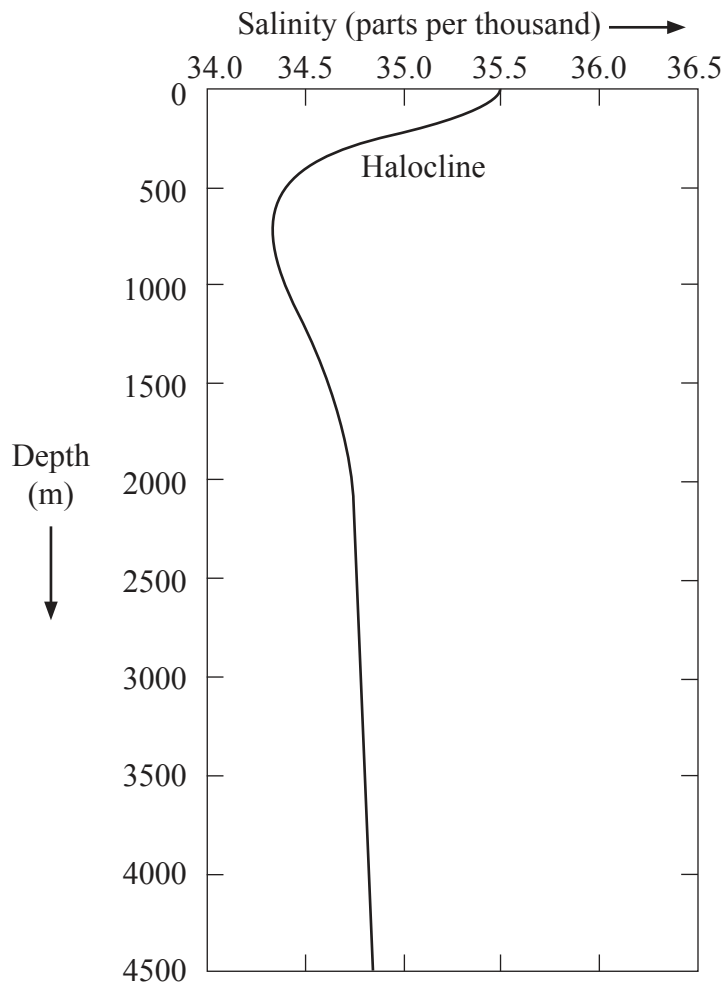
The diagram shows a river floodplain.

- (a) Referring to the diagram, briefly describe **two** floodplain management strategies. [2+2 marks]
- (b) Explain how human activities on a floodplain can increase the probability of flooding. [6 marks]
- (c) “Eutrophication is the most damaging agricultural impact on water quality.” Discuss this statement. [10 marks]

- 2.
- (a) Draw a labelled diagram of a hydrograph. [4 marks]
 - (b) Explain how hydrographs are used to forecast floods. [6 marks]
 - (c) “Dams and reservoirs create as many problems as they solve.” Discuss this statement with reference to multi-purpose schemes. [10 marks]

Optional Theme B — Oceans and their coastal margins

3. The graph shows vertical variations in the salinity of ocean water.



[Source: http://cimss.ssec.wisc.edu/sage/oceanography/lesson4/images/sm_salinity_depth.jpg]

- (a) Describe the vertical variations in the salinity shown on the graph. *[4 marks]*

- (b) (i) Explain what is meant by “oceanic conveyor belts”. *[2 marks]*
(ii) Suggest **two** reasons why oceanic conveyor belts are important. *[2+2 marks]*

- (c) Discuss the effects of El Niño on some coastal margins. *[10 marks]*

4. *If you choose to answer this question refer to the map on pages 2 and 3 in the Resources Booklet.*

The map extract shows a coastal area in Ireland. The scale of the map is 1:50 000 and the contour interval is 50 metres.

- (a) Using map evidence, describe the effects of deposition in Area A. *[4 marks]*
- (b) Using map evidence, explain **one** likely conflict between types of human activity in:
- (i) Area A,
- (ii) Area B. *[2×3 marks]*
- (c) Examine the sources and impacts of waste disposal in oceans. *[10 marks]*

Optional Theme C — Extreme environments

5. *If you choose to answer this question refer to the photograph on page 4 in the Resources Booklet.*

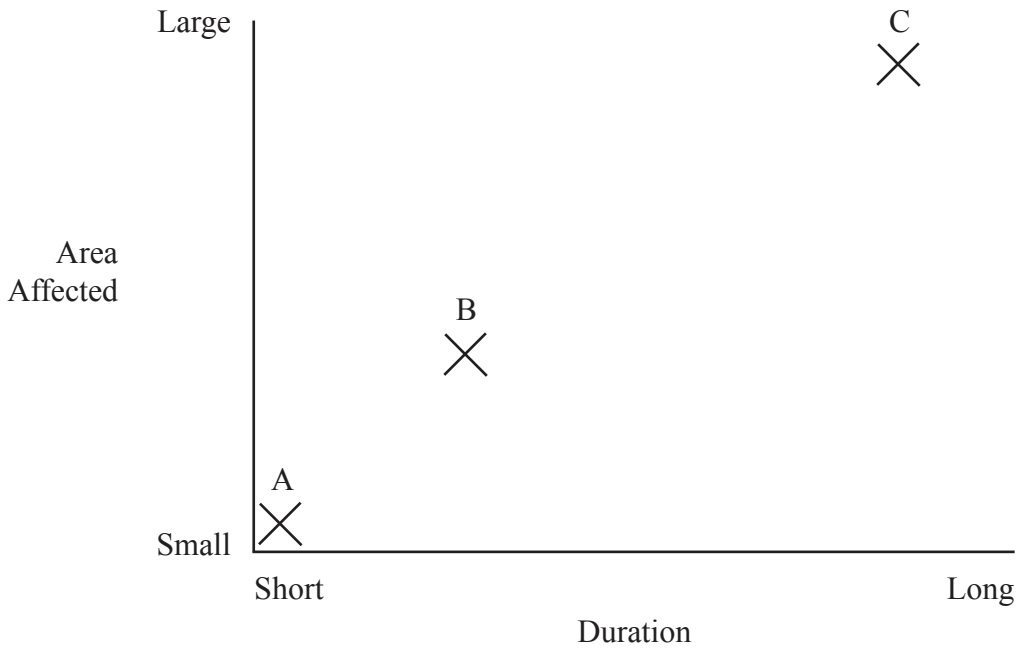
The photograph shows an arid landscape.

- (a) (i) Name the landform in the background of the photograph. *[1 mark]*
- (ii) State **two** processes of wind transport found in areas such as this. *[2 marks]*
- (iii) State the direction from which the wind normally blows. *[1 mark]*
- (b) Explain the occurrence of flash floods in areas like the one shown in the photograph. *[6 marks]*
- (c) “The opportunities for tourism outweigh the challenges.” Discuss this statement with reference to **one** extreme environment. *[10 marks]*

6. (a) (i) Define *glacial environment*. *[2 marks]*
- (ii) Define *periglacial environment*. *[2 marks]*
- (b) Explain how and why glaciers retreat. *[3+3 marks]*
- (c) “Periglacial areas offer more opportunities for human activity than glacial areas.” Discuss this statement. *[10 marks]*

Optional Theme D — Hazards and disasters – risk assessment and response

7. The diagram shows three natural hazards (A, B, C), their duration and the size of the area they affect.



- (a) Identify **two** of the hazards shown and explain your choice. *[2+2 marks]*
 - (b) Analyse the global distribution of **one** of the hazards you identified in part (a). *[6 marks]*
 - (c) Using examples, evaluate the success of adjustment and response strategies for a named hazard type. *[10 marks]*
- 8.
- (a) Outline the methods used to describe the magnitude (strength) of **two** hazard types. *[2+2 marks]*
 - (b) Suggest **three** reasons why some people continue to live in places with a known hazard risk. *[3×2 marks]*
 - (c) “Economic factors and not physical factors determine the severity of the impacts of hurricanes (typhoons, cyclones).” Discuss this statement using examples. *[10 marks]*

Optional Theme E — Leisure, sport and tourism

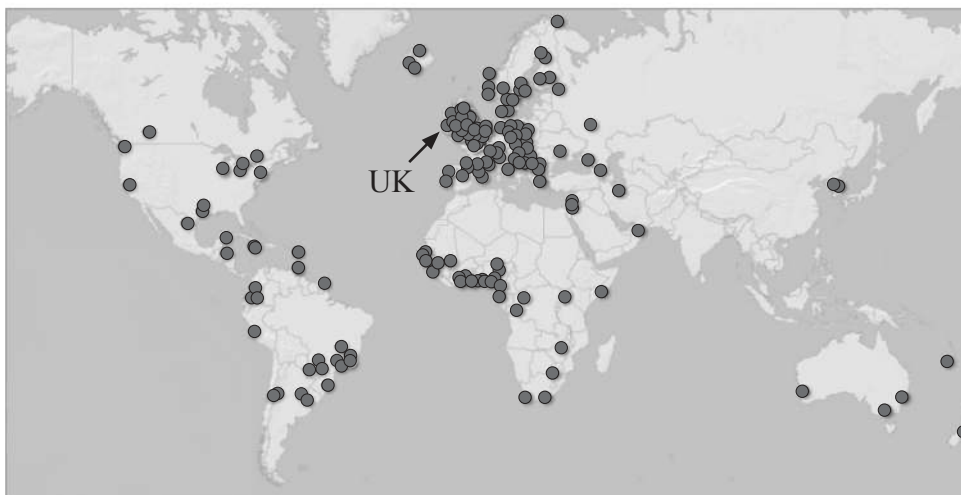
9. The maps show the birth places of players in a sports league in the UK in 1990 and 2010.

1990



Key:
● Player's birthplace

2010



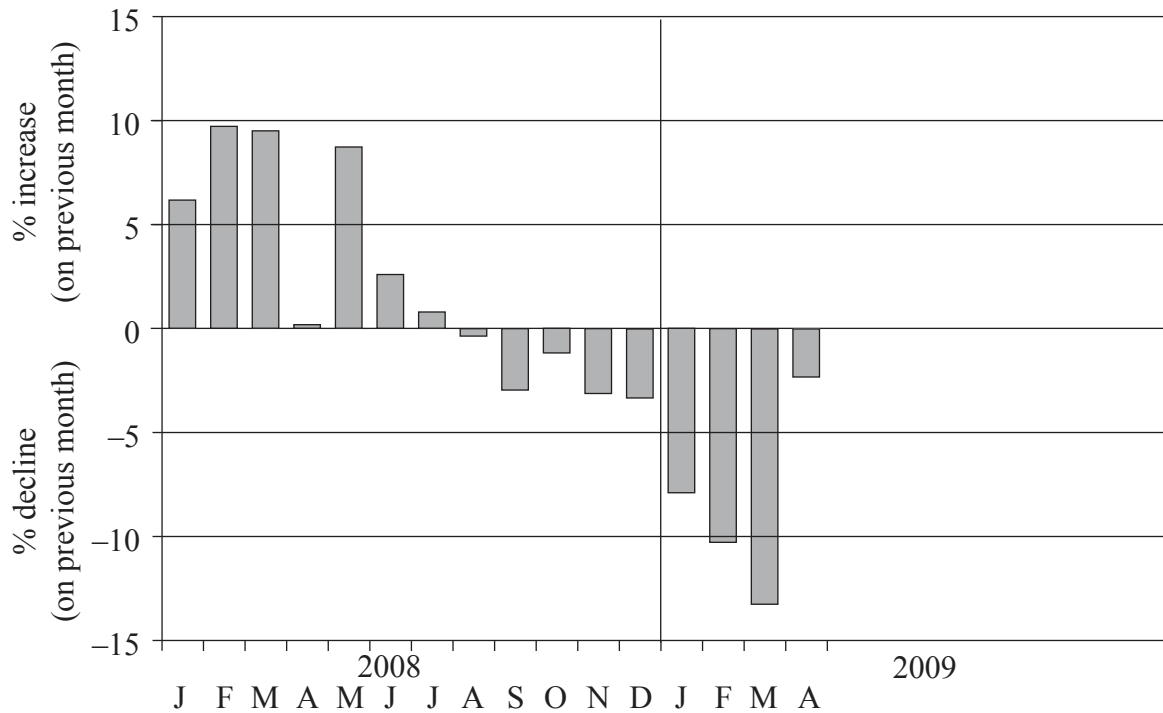
[Source: adapted from http://news.bbc.co.uk/sport2/hi/football/eng_prem/8182090.stm]

- (a) Describe the pattern of birth places in 1990 and how it has changed by 2010. *[2+2 marks]*

- (b) Suggest **three** possible reasons why the sphere of influence of this league's supporters has grown in size since 1990. *[3×2 marks]*

- (c) "Local people do not benefit from hosting an international sporting event." Discuss this statement. *[10 marks]*

10. The graph shows the monthly changes in international tourist arrivals worldwide from January 2008 to April 2009.



[Source: World Tourism Organization (UNWTO)]

- (a) Describe the changes in international tourist arrivals shown in the graph. *[4 marks]*

- (b) Explain **three** reasons why international tourist arrivals can change in **one** named rural or urban location. *[3 × 2 marks]*

- (c) “Most recreational and sports facilities in urban areas are located near the city centre.” Discuss this statement. *[10 marks]*

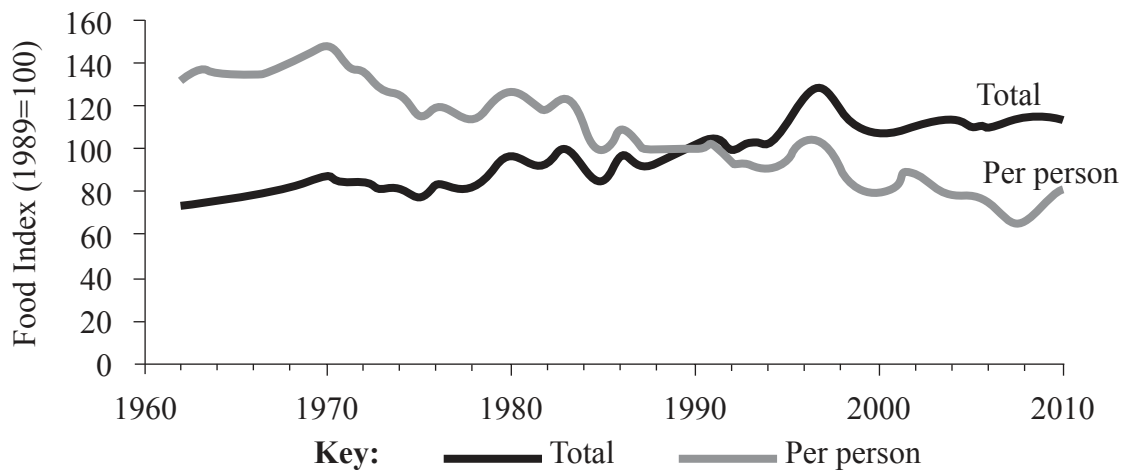
Optional Theme F — The geography of food and health

11. *If you choose to answer this question refer to the map on page 4 in the Resources Booklet.*

The map shows the rates of infection (number of cases per 10 000 people) for a water-borne disease in a city in India in 2003.

- (a) (i) State **one** other indicator besides infection rates which could be used to map the health of people in this city. *[1 mark]*
- (ii) Referring to the map, describe the pattern of this disease in the city. *[3 marks]*
- (b) Explain **three** possible reasons, **one** environmental, **one** social and **one** economic, for this pattern. *[3 × 2 marks]*
- (c) “Poverty is the main cause of food insecurity.” Discuss this statement. *[10 marks]*

12. The graph shows the total food production and food production per person in Country A, 1962–2010.



[Source: *Geofile* (Nelson Thornes, 2005)]

- (a) (i) State the year when the index of total food production was greatest. [1 mark]
- (ii) State the value of the food index per person in 1970. [1 mark]
- (b) Describe the trend in total food production shown on the graph. [2 marks]
- (c) Suggest reasons for the trends in total food production and in food production per person from 1962 to 2010. [6 marks]
- (d) Examine the geographic connections between food availability and health. [10 marks]

Optional Theme G — Urban environments

13. *If you choose to answer this question refer to the map on page 4 in the Resources Booklet.*

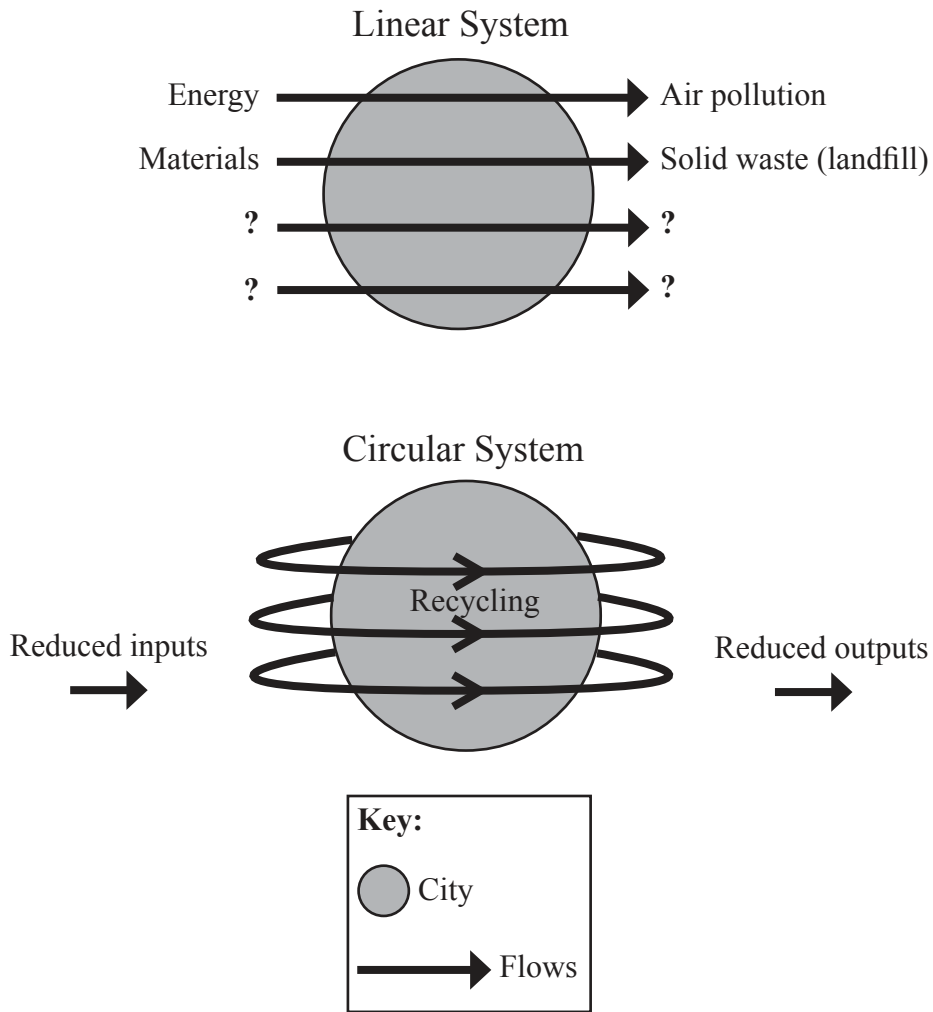
The map shows the pattern of deprivation for Vancouver, one of Canada’s wealthiest cities.

- (a) Describe the pattern of deprivation shown on the map. *[3 marks]*

- (b) Explain how and why the pattern of deprivation might differ for a city in a low income country. *[2+5 marks]*

- (c) Evaluate **one or more** sustainable strategies designed to improve life in urban areas. *[10 marks]*

14. The diagram shows two contrasting city systems.



[Source: adapted from www.dep.org.uk/scities/rationale/whylearn.php]

- (a) Identify **two** possible additional inputs and **two** possible additional outputs for the linear system. *[4 marks]*
- (b) Explain why the circular system has a reduced urban ecological footprint. *[6 marks]*
- (c) Examine the dominant population movements and their consequences for **one or more** urban areas. *[10 marks]*