

# Paper Two - Optional Themes for Standard and Higher Level

**Timing:** Approximately 40 minutes for each question (each is worth 20 marks).

**Choice:** Higher Level candidates must answer three questions and Standard Level two questions.

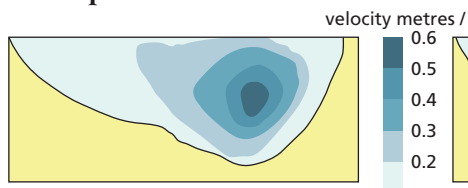
**Structure:**

One or both of the questions will have stimulus material in the form of a map, table, graph, and photo or a diagram. The question will normally have three parts:

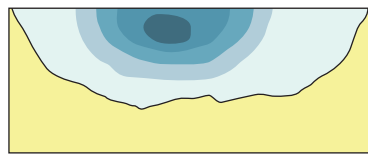
- The first part is allocated about four marks and asks you to refer to the stimulus material using straightforward command terms such as *assess*, *define*, *describe* and *identify*.
- The second part is allocated about six marks and asks you to draw on your own knowledge. It may or may not refer back to the stimulus material. The command terms are more difficult, such as *analyse*, *explain* and *suggest*.
- The third part is always allocated 10 marks and asks for a more analytical approach. The command terms are more difficult, such as *discuss*, *evaluate* and *justify*. This is where you should include examples and case studies.

## Option A: Freshwater – issues and conflicts

### 1 Cross profile A

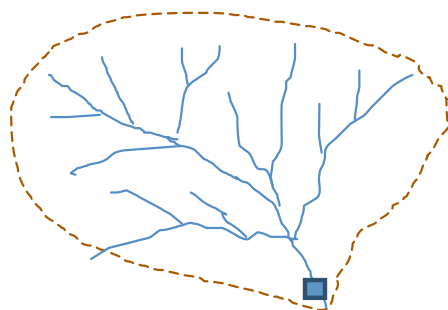


### Cross profile B

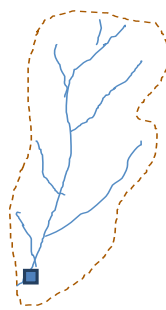


- Describe the pattern of stream velocity shown in the cross profiles A and B [4 marks]
- Suggest three natural causes of reduced river velocity [6 marks]
- Explain how human occupation of floodplains increases the risk of flooding. [10 marks]

### 2

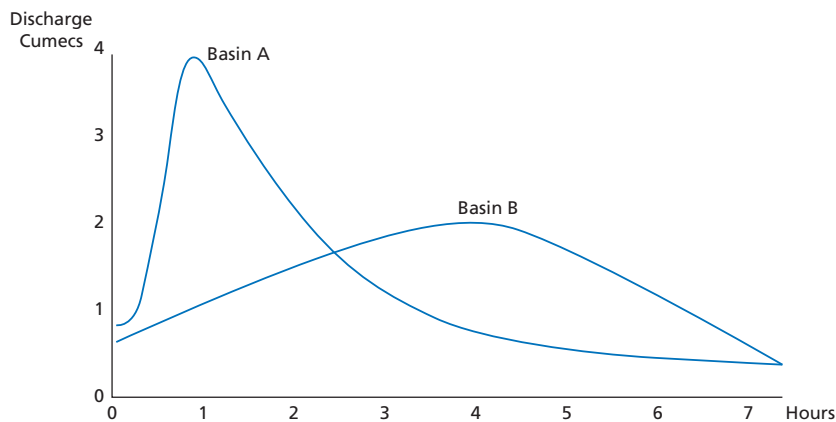


Basin A



Basin B

■ Discharge gauging station



The hydrograph shows the stream discharge from two drainage basins after the same storm event which occurred at 0 hours on the graph.

- Describe the response to the storm event of basins A and B shown on the hydrograph. [4 marks]
- Suggest a reason for the differences in the response of these two basins. [3 marks]
- Briefly explain the value of hydrographs. [3 marks]
- Examine the reasons for conserving wetland.

### Option B: Oceans and their coastal margins

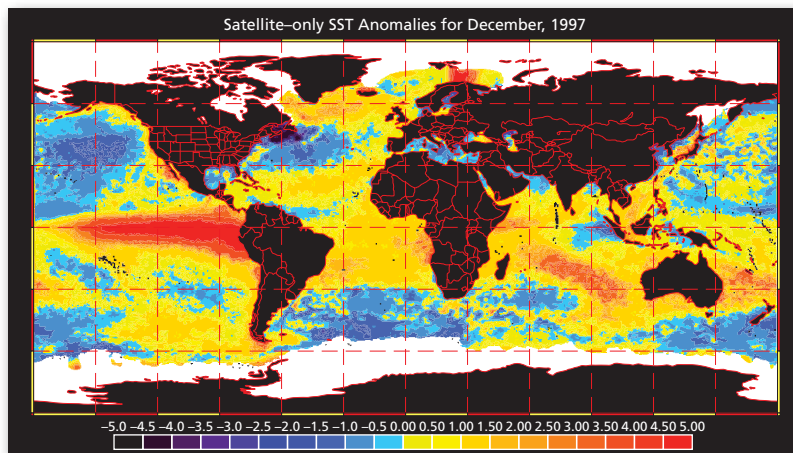
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The photo shows a cliff face on the coastline of southern England.

- Describe two physical processes involved in the formation of this cliff-face. [4 marks]
- Explain why land use conflicts occur in coastal zones. [6 marks]
- Referring to at least one example, examine the reasons why successful coastal management is difficult to achieve. [10 marks]

4

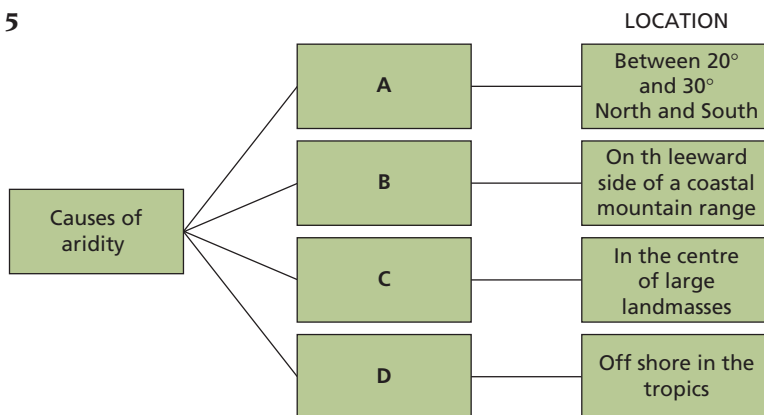


Source: <http://www.osdpd.noaa.gov/ml/ocean/sst/contour.html>

- a Describe the pattern of sea surface temperature anomalies shown on the map between 120° E and 60° W and 30° N and 30° S. [4 marks]
- b With the aid of a diagram explain the causes of El Nino. [4 marks]
- c Explain the socio-economic impact of an El Nino event. [10 marks]

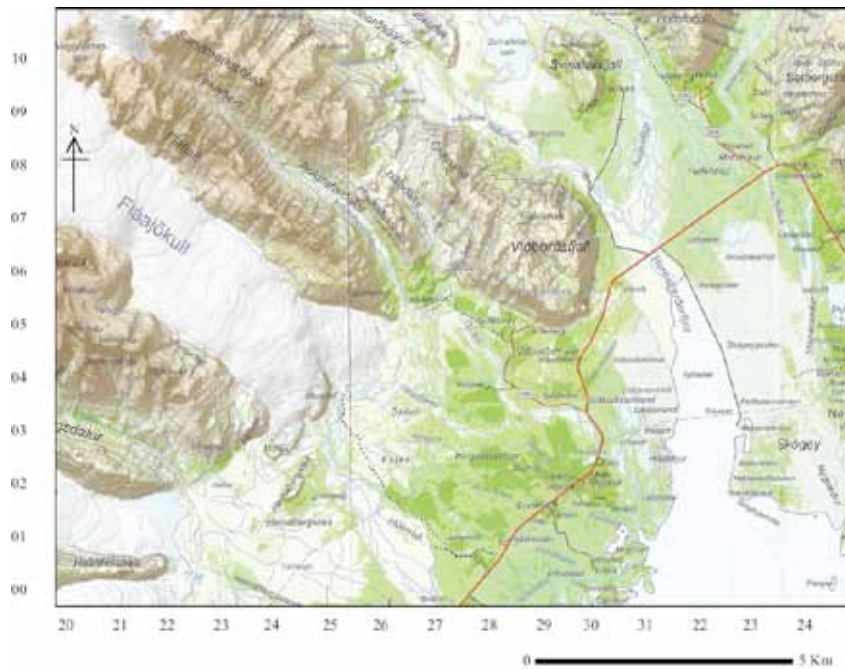
### Option C: Extreme environments

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- a Complete the flow chart by naming the causes of aridity labelled A–D. [4 marks]
- b Outline the human factors responsible for the process of desertification. [6 marks]
- c Referring to examples, discuss the extent to which lack of warmth is less of a hindrance to development than lack of water. [10 marks]

- 6 The map shows the Flajjokull glacier in the Hofn district in eastern Iceland.

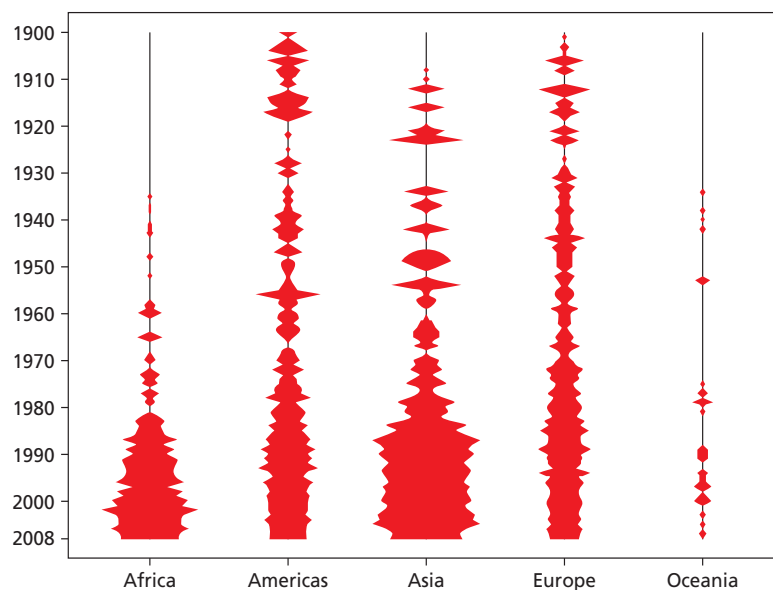


Map published by Mál og Menning 2009.1:100000

- a Referring to the map, identify and locate two physical features resulting from glacial activity and justify your answer. [4 marks]
- b Explain three effects of permafrost upon human activity in cold environments. [6 marks]
- c High latitude imposes more limitations on human activity than high altitude. Discuss this view. [10 marks]

#### Option D: Hazards and disasters – risk assessment and response

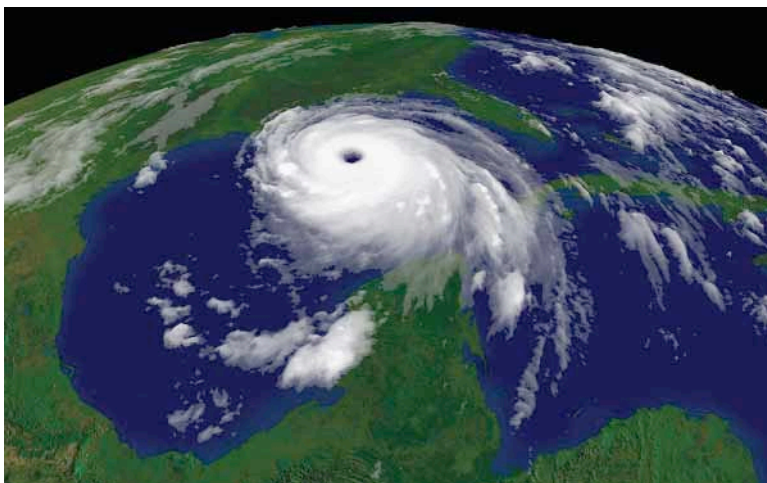
- 7 Number of people reported killed by technological disasters 1900–2008 (square rooted)



Source: <http://www.emdat.be/technological-disasters-trends>

- a Describe the trends in technological disasters shown by the graph [2 marks]
- b Account for the different trends shown by two of the world regions. [6 marks]
- c To what extent are human-induced technological hazards events more predictable, and therefore manageable, than natural ones? [10 marks]

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The satellite image shows Hurricane Katrina on August 25th 2005.

- a Describe the current stage of development of the hurricane in this image. [4 marks]
- b Describe and explain global pattern of hurricane (tropical cyclone/ typhoon) activity. [6 marks]
- c Discuss the community responses to a local hazard event. [10 marks]

### Option E: Leisure, sport and tourism

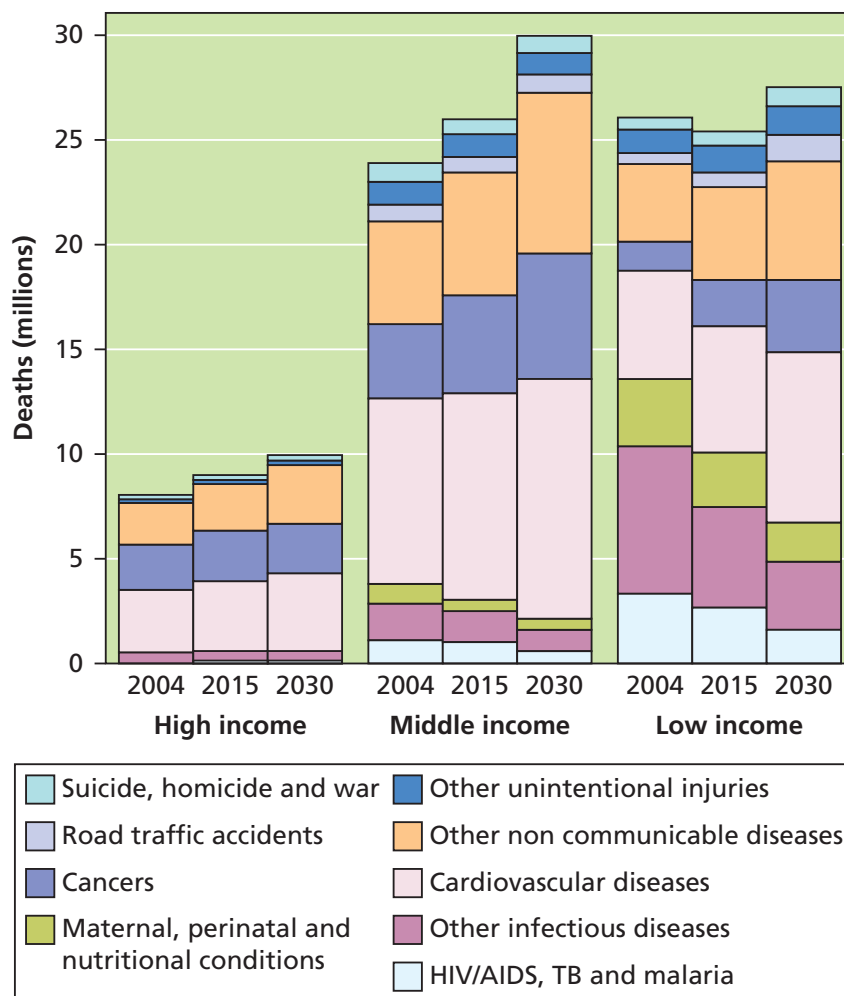
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International Tourist Arrivals by country of Destination for 2000 and 2008 (in millions)			
2000		2008	
Country	Tourists	Country	Tourists
Italy	26.7	China	53
France	52.5	France	79.3
Germany	17	Germany	25.9
Hungary	21	Italy	42.7
Switzerland	13	Mexico	22.6
Spain	34.1	Spain	57.3
Mexico	17.1	Turkey	25
Austria	19	UK	30.1
UK	18.1	Ukraine	25.4
USA	39.4	USA	58

- a Rank the countries in the table for 2008 according to their number of international tourist arrivals. [2 marks]
- b Name two countries, one showing the greatest rise and the other the greatest fall in rank since 2000. [2 marks]
- c Suggest three reasons for increasing demand for one of the tourist destinations shown on the table. [6 marks]
- d Discuss the view that tourism brings few benefits to local people [10 marks]
- 10 a Describe the characteristics of heritage tourism. [4 marks]
- b Explain the location of leisure amenities in one named urban area. [6 marks]
- c Discuss the benefits and costs of hosting a sporting event as a means of improving or regenerating cities. [10 marks]

### Option F: The geography of food and health

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Source: WHO The Global Burden of Disease 2009

- a Define and give one example of:
- (i) A vector-borne disease,
- (ii) A non-communicable disease [2 + 2 marks]

**b** Explain the epidemiological transition that is shown by this diagram that occurs during the process of economic development. [6 marks]

**c** Examine the relationship between human nutrition and disease. [10 marks]

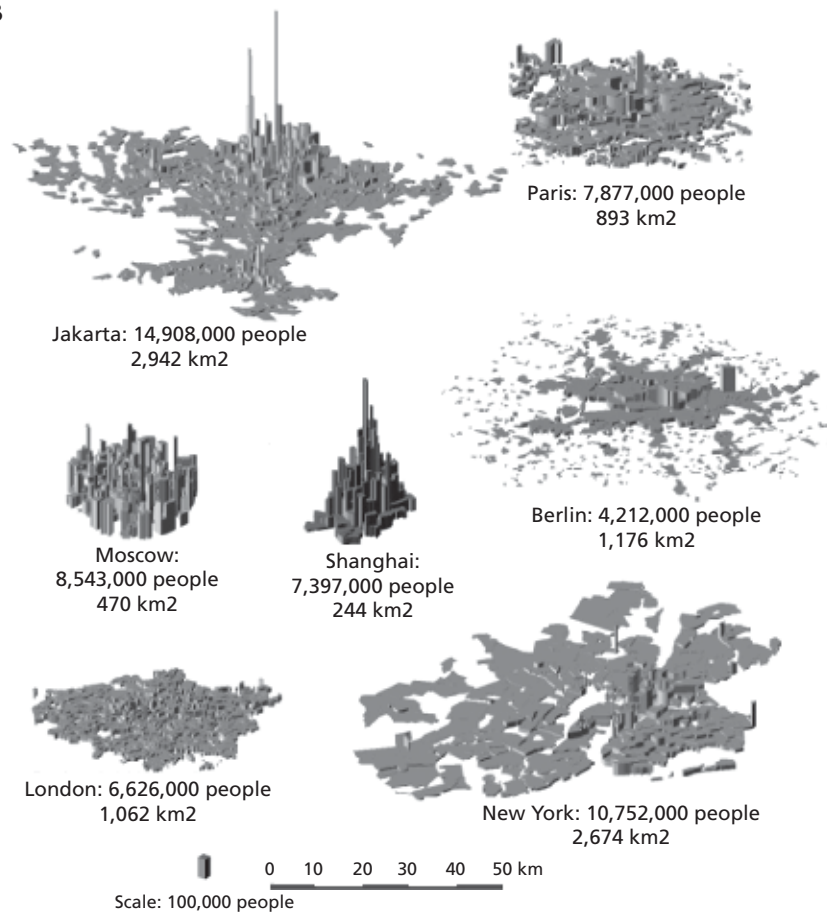
**12 a** Describe the global pattern of calorie consumption. [4 marks]

**b** Explain one political and one economic cause of food shortage. [6 marks]

**c** Examine the principles of sustainable agriculture. [10 marks]

### Option G: Urban environments

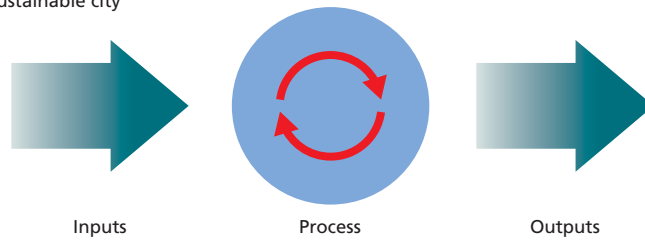
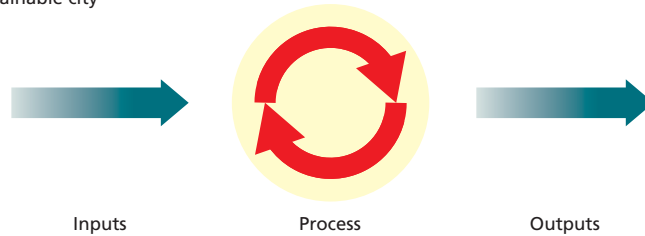
**13**



**a** Classify the seven cities shown in the diagram according to their population densities, and describe the distinctive characteristics of each group. [4 marks]

**b** Explain the causes and consequences of urban sprawl. [6 marks]

**c** Analyse the effect of urban structure upon microclimate. [10 marks]

**14 A** The unsustainable city**B** The sustainable city

- a** Name three inputs and three outputs in diagram A. [3 marks]
- b** Name the city process and briefly explain the differences between diagram A and B. [2 marks]
- c** Explain what is meant by the urban ecological footprint. [5 marks]
- d** Referring to one or more case studies, examine the extent to which the principles of sustainable city management have been successfully applied. [10 marks]