



GCE AS/A level

1201/01

**GEOGRAPHY G1
CHANGING PHYSICAL ENVIRONMENTS**

P.M. THURSDAY, 24 May 2012

1½ hours

ADDITIONAL MATERIALS

In addition to this examination paper, you will need one 12 page answer book.

INSTRUCTIONS TO CANDIDATES

Use black ink or black ball-point pen.

Answer **all** questions.

Write your answers in the separate answer book provided.

Write your name, centre number and candidate number in the spaces at the top of the answer book.

INFORMATION FOR CANDIDATES

Each question carries **25** marks.

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

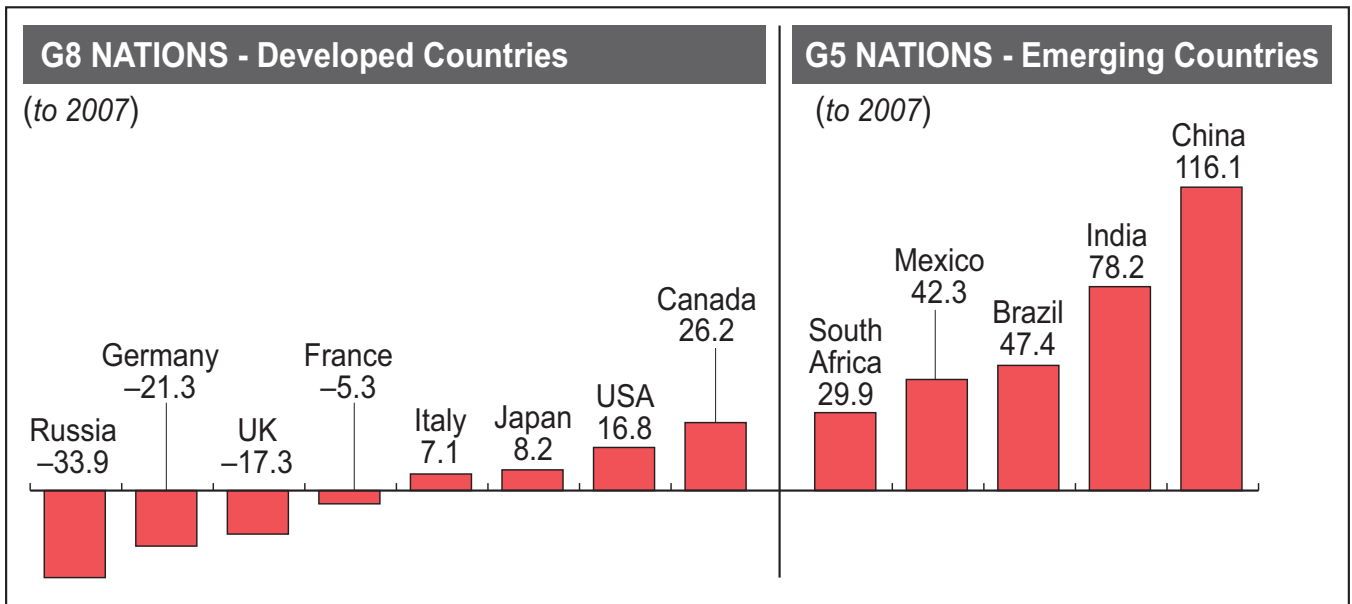
You are reminded that assessment will take into account the quality of written communication used in your answers.

THIS PAPER REQUIRES THAT YOU MAKE THE FULLEST POSSIBLE USE OF APPROPRIATE EXAMPLES IN SUPPORT OF YOUR ANSWERS. SKETCH-MAPS AND DIAGRAMS SHOULD BE INCLUDED WHERE RELEVANT.

Answer **all** questions.

Make the fullest possible use of examples in support of your answers.

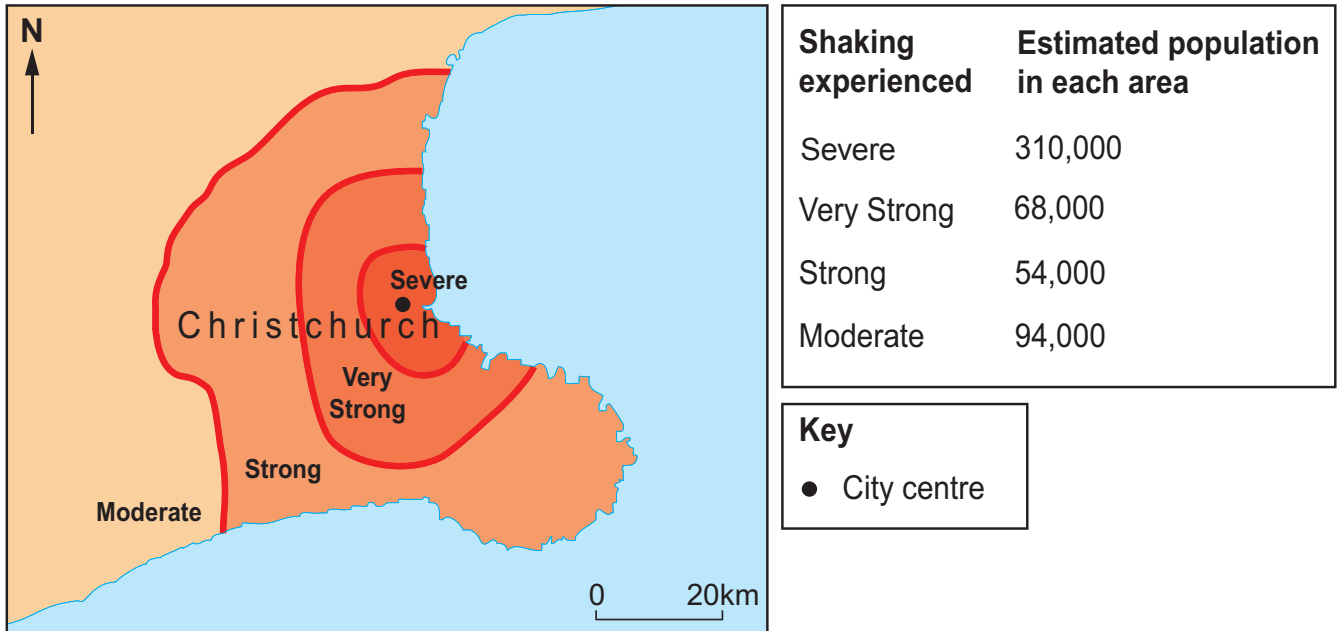
Figure 1: Percentage change in greenhouse gas emissions for selected countries, 1990-2007



Source: adapted from www.allvoices.com

1. (a) Describe the changes in greenhouse gas emissions shown in **Figure 1**. [5]
- (b) Outline how human activities have caused changes to greenhouse gas emissions. [10]
- (c) Outline the relationship between climate and **one or more** biomes. [10]

Figure 2: Shaking experienced during the main earthquake on 22nd February 2011, Christchurch, New Zealand



Source: adapted from <http://earthquake.usgs.gov>

2. (a) Describe the variations in shaking experienced by people in the area shown in **Figure 2**. [5]
- (b) Outline the local and regional impacts of **one or more** tectonic events. [10]
- (c) Discuss the effectiveness of management strategies in relation to **one** tectonic hazard. [10]

Figure 3: Impacts of floods in North Korea, 2007 and 2010

Year	2007		2010	
Time of Year	August	September	July	September
Total rainfall (mm)	500-760	300-400	170-300	50-150
Intensity (mm/day)	71-108	150-200	17-30	25-75
Total area submerged (hectares)	32 278	268 000	30 550	
Length of power lines damaged (km)	40		Limited damage	
Damage to transport	Railway bridges: 23 roads: 600 km		Railway bridges: 4 roads: 1 km	
Number of houses affected	40 463 destroyed 67 056 damaged		19 307 damaged	
Number of public facilities damaged	8 000		500	

Source: adapted from www.fas.org

3. (a) Use **Figure 3** to compare the impacts of the 2007 and 2010 floods in North Korea. [7]
- (b) Outline **two** methods of data collection that could be used to investigate the impacts of flooding. [8]
- (c) Outline the main conclusions of an investigation into a changing physical environment that you have completed. [10]

You should state clearly the question that you have investigated.