



GCE AS/A level

1201/01

GEOGRAPHY – G1
Changing Physical Environments

P.M. TUESDAY, 14 May 2013

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.

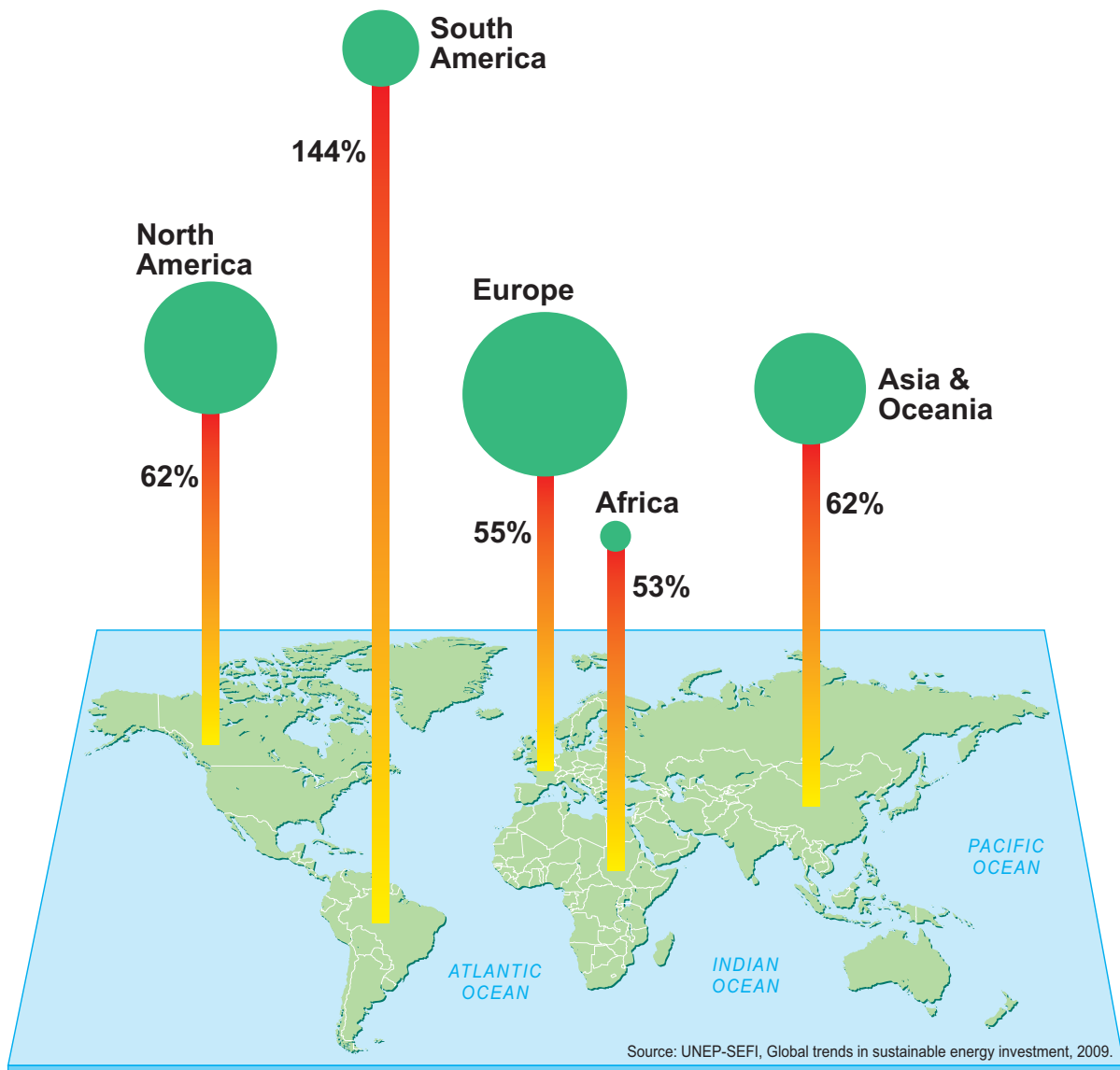
THIS PAPER REQUIRES THAT YOU MAKE THE FULLEST POSSIBLE USE OF APPROPRIATE EXAMPLES IN SUPPORT OF YOUR ANSWERS. SKETCH-MAPS AND DIAGRAMS SHOULD BE INCLUDED WHERE RELEVANT.

G1 – CHANGING PHYSICAL ENVIRONMENTS

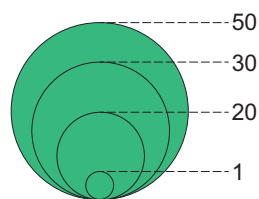
Answer **all** questions.

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

Figure 1: Variations in Green Energy investments, 2008



Key:



Green Energy investments,
billion US dollars in 2008



The figures (e.g. 62%)
show annual growth rate
of Green Energy investments
2004 – 2008

% growth

Source: adapted from Riccardo Pravettoni, UNEP/GRID-Arendal

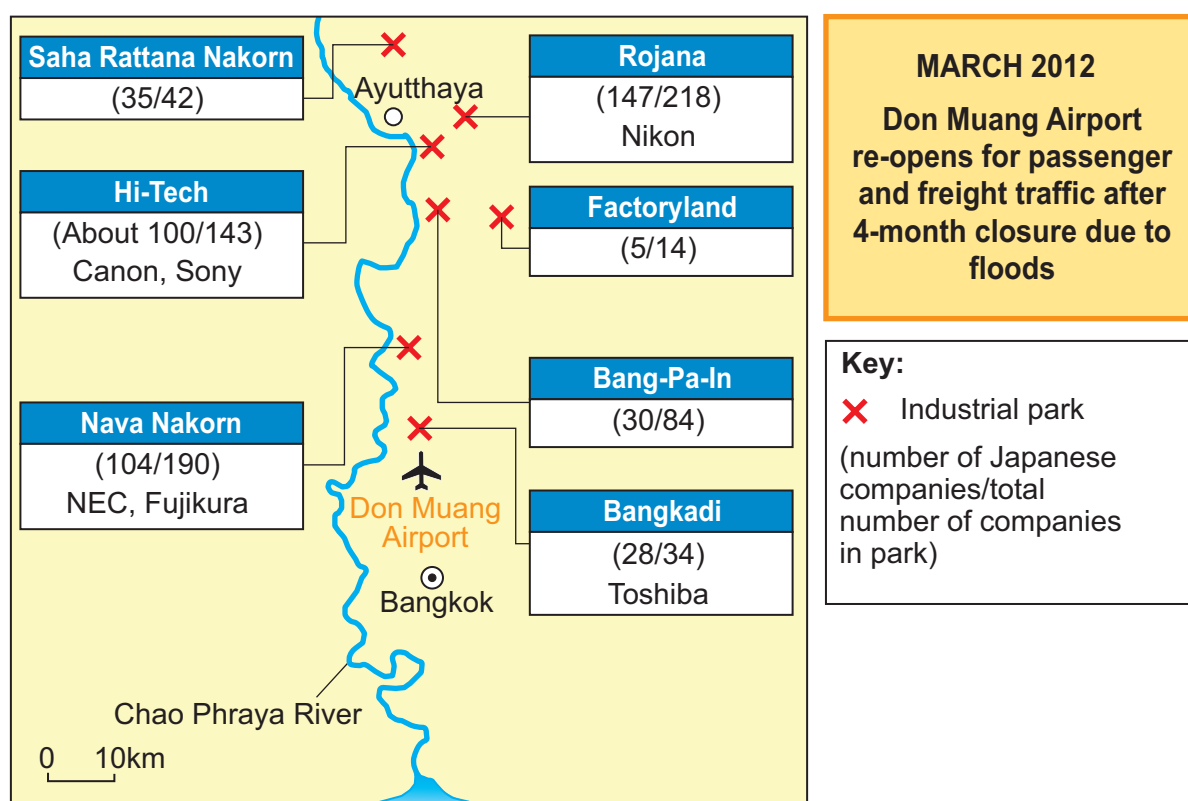
1. (a) Use **Figure 1** to describe global variations in Green Energy investments. [5]
- (b) Explain **two** environmental causes of climate change. [10]
- (c) Outline the possible effects of rising sea levels on people. [10]

Figure 2a: The effects of flooding on Japanese companies located in Thailand, October 2011

Type of industry	Company	Impact	Outcome
Vehicles	Toyota	Parts not supplied due to flood damage	Production suspended in Japan and USA
Electronics	Nikon	Digital camera factory submerged	Production suspended
	Sony		
	Canon	Printer factory submerged	Considering moving production to other parts of Thailand
	Nidec	Electronic parts factory submerged	Considering moving production to China

Source: adapted from <http://www.nationmultimedia.com>

Figure 2b: Flooded industrial parks in Thailand



Source: adapted from <http://www.yomiuri.co.jp>

2. (a) Use **Figure 2** to describe the effects of flooding in Thailand on Japanese companies. [5]
- (b) Outline how the drainage basin operates as a system. [10]
- (c) Suggest why perceptions of **either** flood hazards **or** tectonic hazards may vary between different groups of people. [10]

Figure 3: Volcanic Explosivity Index (VEI)

VEI	Volume of material ejected	Height of ash cloud	Approximate frequency	Eruptions in last 10,000 years	Examples
0	< 10,000 m ³	< 100 m	constant	many	Kilauea, Piton de la Fournaise
1	> 10,000 m ³	100 - 1000 m	daily	many	Stromboli, Nyiragongo
2	> 1,000,000 m ³	1 - 5 km	weekly	3477	Galeras, Mount Sinabung
3	> 10,000,000 m ³	3 - 15 km	few months	868	Nevado del Ruiz, Soufrière Hills
4	> 0.1 km ³	10 - 25 km	≥ 1 year	421	Mount Pelée, Eyjafjallajökull
5	> 1 km ³	20 - 35 km	≥ 10 years	166	Mount Vesuvius, Mount St. Helens
6	> 10 km ³	> 30 km	≥ 100 years	51	Krakatoa, Mount Pinatubo
7	> 100 km ³	> 40 km	≥ 1,000 years	5	Thera (Minoan Eruption), Tambora
8	> 1,000 km ³	> 50 km	≥ 10,000 years	0	Yellowstone, Toba

Source: adapted from <http://blog.fitb.itb.ac.id>

3. (a) Use **Figure 3** to describe how volcanic activity varies. [7]
- (b) Outline **two** ways of presenting information from **Figure 3**. [8]
- (c) Discuss the methods used to collect data in an investigation into a changing physical environment that you have completed. [10]
- You should state clearly the question that you have investigated.*