



General Certificate of Education
Advanced Level Examination
June 2013

Geography

GEOG3

Unit 3 Contemporary Geographical Issues

Friday 7 June 2013 1.30 pm to 4.00 pm

For this paper you must have:

- an AQA 12-page answer book.

You may use a calculator.

Time allowed

- 2 hours 30 minutes

Instructions

- Use black ink or black ball-point pen. Pencil should only be used for drawing.
- Write the information required on the front of your answer book. The **Examining Body** for this paper is AQA. The **Paper Reference** is GEOG3.
- Answer **three** options: **one** from each section. In **Section C**, you must **not** answer the same option as those chosen in **Sections A** and **B**.
- Use sketch maps, diagrams and specific examples, where appropriate.
- Do all rough work in your answer book. Cross through any work that you do not want to be marked.

Information

- The marks for questions are shown in brackets.
- The maximum mark for this paper is 90.
- You will be marked on your ability to:
 - use good English
 - organise information clearly
 - use specialist vocabulary where appropriate.

Advice

- You are advised to spend about 45 minutes on each of **Sections A** and **B** and about 60 minutes on **Section C**.

Section A

Answer **one** option from this section.

You must not answer the option that you will answer in Section C.

Option 1 Plate Tectonics and Associated Hazards

Total for this option: 25 marks

0 1 Study **Figure 1** which shows the details of a statistical investigation into the relative magnitude of earthquakes in two countries, Japan and Italy.

Comment on the outcomes of this investigation. (7 marks)

Figure 1

Null hypothesis: there is no difference between the magnitude of earthquakes in Japan and Italy.

Ten largest Japanese earthquakes (2005 – 2010)		Ten largest Italian earthquakes (1976 – 2010)	
Date of earthquake	Richter Scale	Date of earthquake	Richter Scale
2010	7.4	2009	6.3
2010	7.0	2008	5.2
2009	6.6	2006	5.6
2009	6.9	2004	5.2
2008	6.9	2003	5.0
2007	6.6	2002	5.6
2007	6.9	2002	6.0
2006	7.9	1997	5.6
2005	7.2	1980	6.9
2005	7.0	1976	6.2
Mean: 7.0		Mean: 5.8	
Range: 1.3		Range: 1.9	

These data were analysed using the Mann Whitney U Test. The outcomes were:

$$U_{\text{Japan}} = 3.5$$

$$U_{\text{Italy}} = 96.5$$

The critical value for U at the 95% confidence level for two samples of ten within the Mann Whitney U Test is 23.

0 2 Describe the characteristics, and explain the causes, of tsunamis. (8 marks)

0 3 With reference to examples, discuss the ways in which seismic hazards can be managed. (10 marks)

Option 2 Weather and Climate and Associated Hazards

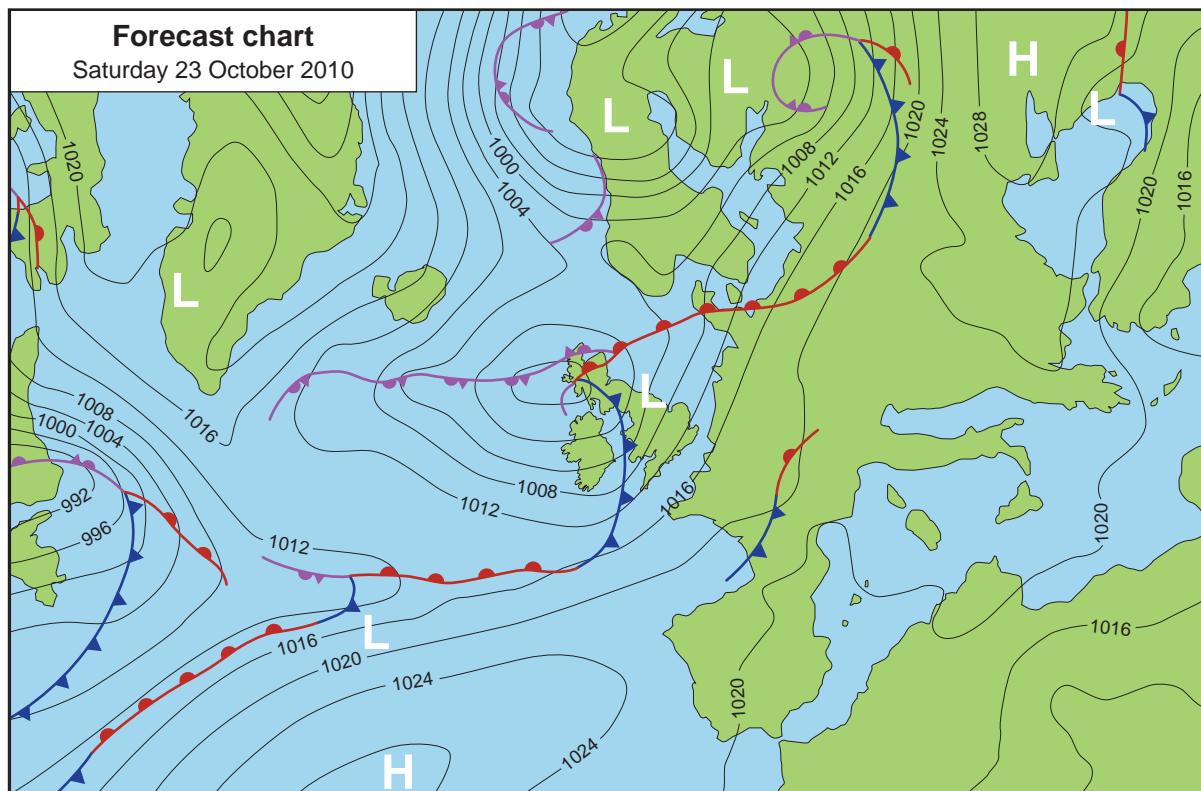
Total for this option: 25 marks

0 4

Study **Figure 2** which shows the synoptic chart forecast by the Met Office for 23 October 2010.

Using **Figure 2**, describe and comment on the weather that was likely to be affecting the British Isles on Saturday 23 October 2010. (7 marks)

Figure 2



0 5

Describe and explain the weather associated with a **winter** anticyclone in the British Isles. (8 marks)

0 6

Discuss the influences of the atmospheric and oceanic circulation on the climate of the British Isles. (10 marks)

Turn over for the next option

Turn over ►

Option 3 Ecosystems: Change and Challenge**Total for this option: 25 marks****0 7**

Study **Figure 3** which shows a satellite image of an area of vegetation that has been affected by human activity.

Describe and comment on the impact of the human activity shown. (7 marks)

Figure 3

**0 8**

Define the term 'biodiversity' and explain how human activity can influence it.

(8 marks)

0 9

Discuss the ways in which distinctive ecologies can develop along routeways.

(10 marks)

End of Section A

Section B

Answer **one** option from this section.

You must not answer the option that you will answer in Section C.

Option 4 World Cities

Total for this option: 25 marks

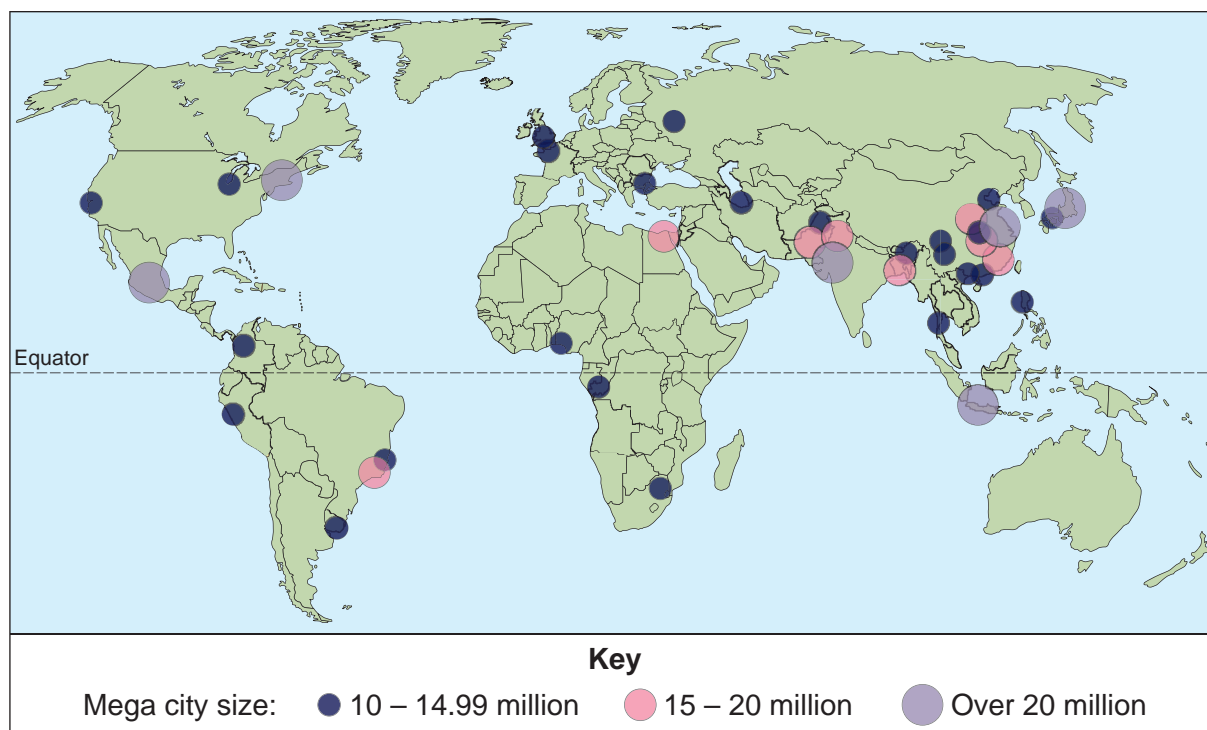
1 0

Study **Figure 4** which shows the global distribution of mega cities in 2010.

Describe and comment on the distribution shown.

(7 marks)

Figure 4



1 1

Define the term 'world city' and outline the role of world cities.

(8 marks)

1 2

Using examples, evaluate the relationship between economic development and urbanisation.

(10 marks)

Turn over for the next option

Turn over ►

Option 5 Development and Globalisation

Total for this option: 25 marks

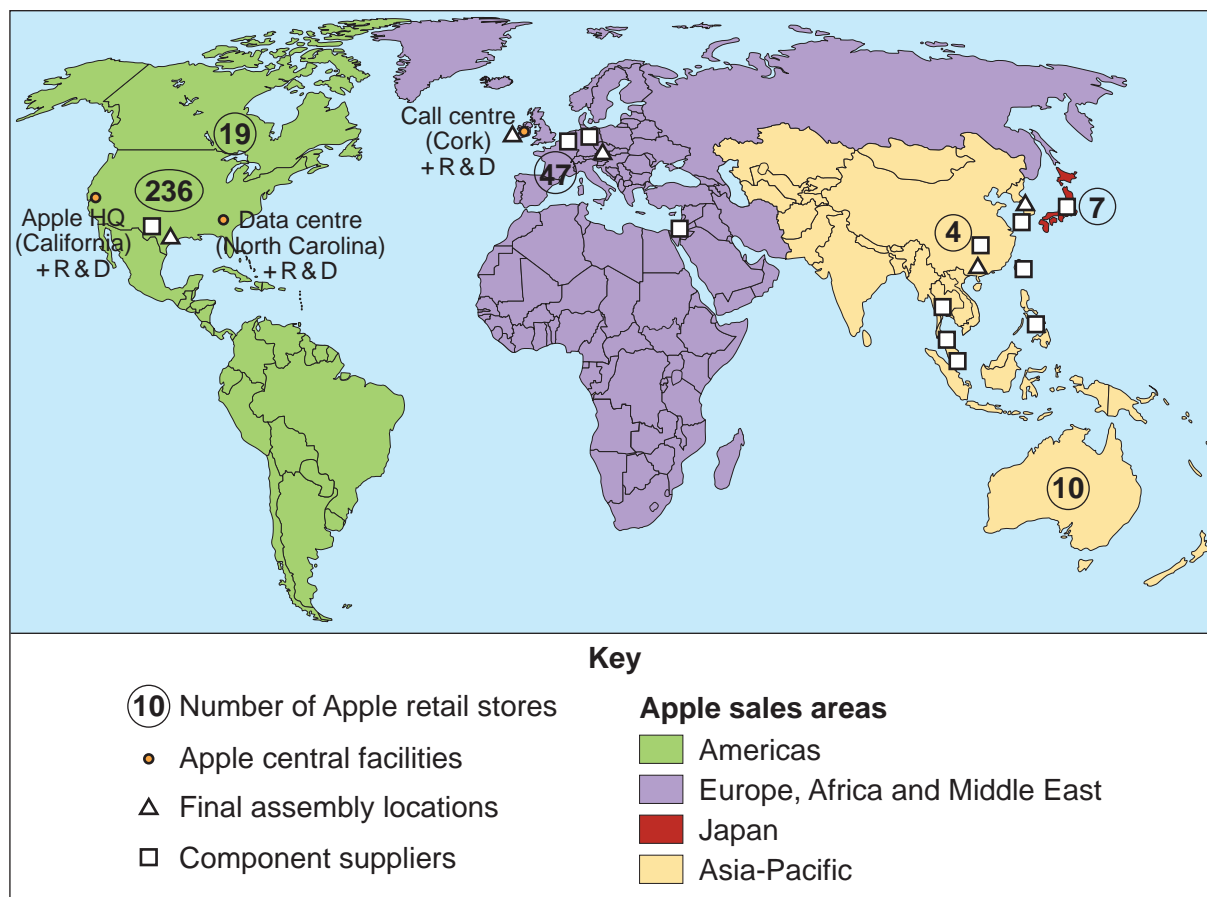
1 3

Study **Figure 5** which shows the spatial organisation of the transnational corporation (TNC) Apple in 2010.

Describe and comment on the information shown.

(7 marks)

Figure 5



1 4

Outline reasons for the growth of TNCs.

(8 marks)

1 5

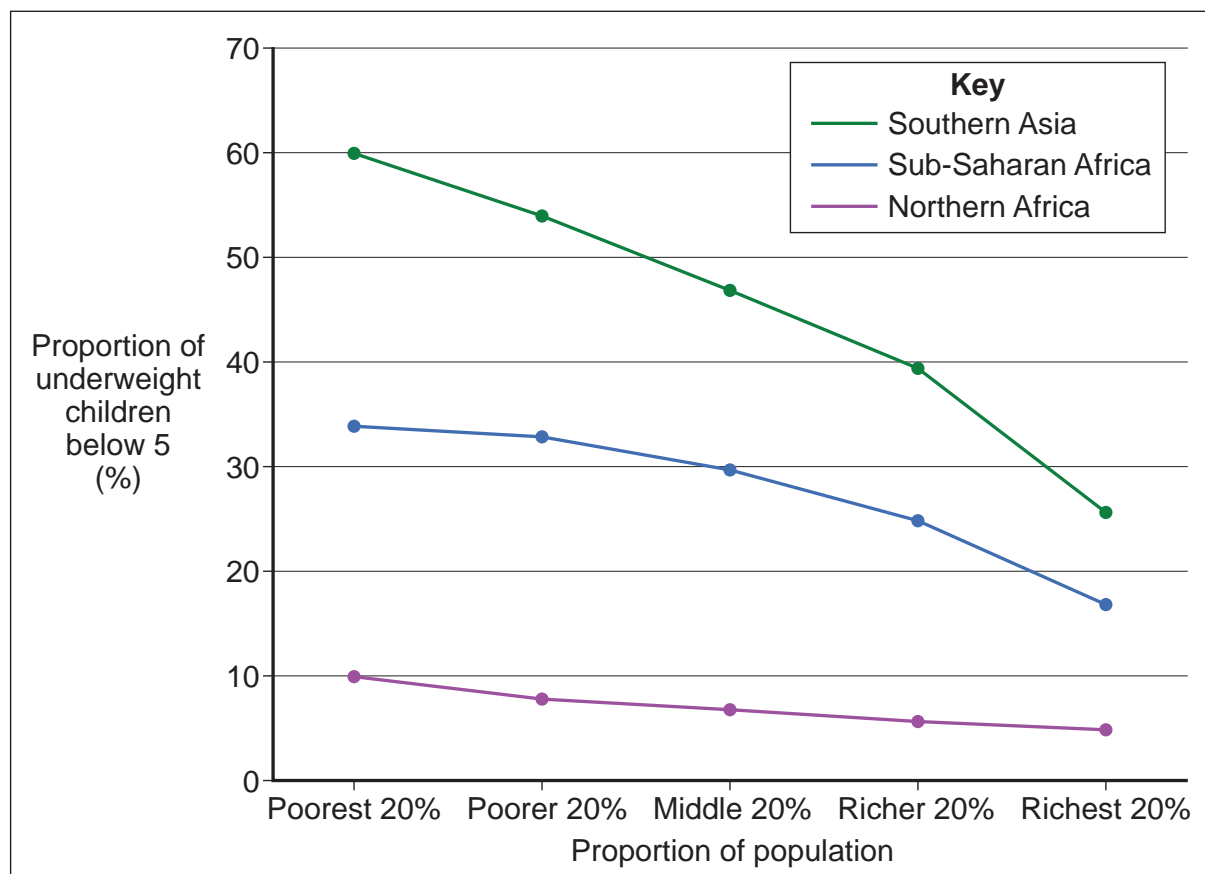
Discuss the social, economic and environmental impacts of TNCs on their host countries.

(10 marks)

Option 6 Contemporary Conflicts and Challenges**Total for this option: 25 marks****1 | 6**

Study **Figure 6** which relates to the proportion of underweight children, below the age of 5, in three developing regions of the world in 2008.

Describe and comment on the information provided.

*(7 marks)***Figure 6****1 | 7**

Outline the causes of poverty.

*(8 marks)***1 | 8**

Evaluate attempts to address poverty on a global scale.

*(10 marks)***End of Section B****Turn over ►**

Section C

Answer **one** option from this section.

You must not answer the option answered in either Section A or Section B.

Note to Candidate

The essay questions below are synoptic. In your response to these questions you are required to show your knowledge and understanding of different aspects of geography, the connections between these different aspects and, where relevant, of human perspectives upon geographical themes and issues.

Option 1 Plate Tectonics and Associated Hazards

1 | 9 Analyse the factors that cause differences in the hazards posed by volcanoes around the world. *(40 marks)*

Option 2 Weather and Climate and Associated Hazards

2 | 0 'The Earth has a fever, and the fever is rising.... We are what is wrong, and we must make it right.' (Al Gore, 2007)

In the context of global warming, discuss the extent to which you agree with this statement. *(40 marks)*

Option 3 Ecosystems: Change and Challenge

2 | 1 Discuss the ways in which human activities influence ecosystems at a local scale. *(40 marks)*

Option 4 World Cities

2 | 2 Discuss the view that urbanisation in both the developed and the developing world is unsustainable. *(40 marks)*

Option 5 Development and Globalisation

2 | 3 Discuss the view that countries at very low levels of economic development face issues that are beyond their capability to resolve on their own. *(40 marks)*

Option 6 Contemporary Conflicts and Challenges

2 | 4 Discuss the issues that separatism has brought to different areas of the world. *(40 marks)*

END OF QUESTIONS

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Figure 5: Reproduced from Topic Eye by kind permission of Cross Academe

Figure 6: United Nations: Millennium Development Goals Report 2010, www.un.org/millenniumgoals/

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