General Certificate of Education June 2007 Advanced Subsidiary Examination



# **GENERAL STUDIES (SPECIFICATION B) Unit 3 Space**

GSB3

Monday 21 May 2007 1.30 pm to 2.45 pm

#### For this paper you must have:

- an 8-page answer book
- a Source Booklet enclosed as an insert
- graph paper
- a calculator
- drawing instruments.

Time allowed: 1 hour 15 minutes

#### **Instructions**

- Use blue or black ink or ball-point pen.
- Write the information required on the front of your answer book. The *Examining Body* for this paper is AQA. The *Paper Reference* is GSB3.
- Answer all questions.
- Do all rough work in the answer book. Cross through any work you do not want to be marked.

#### **Information**

- The maximum mark for this paper is 60.
- The marks for questions are shown in brackets.
- In parts (b), (d), (e), (f) and (g) you will be marked on your ability to use good English, to organise information clearly and to use specialist vocabulary where appropriate. Parts (b), (d), (e), (f) and (g) should be answered in continuous prose.

M/Jun07/GSB3 GSB3

### There are no questions printed on this page

Study Sources 1 to 4 provided in the separate booklet and then answer the following question.

Total for this paper: 60 marks

#### 1 Look carefully at Sources 1, 2, 3 and 4.

- **Source 1** shows the weights of materials collected from households for recycling (thousands of tonnes) in 2004.
- Source 2 shows examples of the environmental cost of imported organic food items in 2004.
- Source 3 shows the percentage change in greenhouse gas emissions from 1990 to 2003.
- **Source 4** shows an advertisement from WWF (World Wildlife Fund).

Having studied the sources answer **all** of the following questions:

- (a) Using **Source 1** construct and label a pie chart showing the weights of materials collected for recycling. (6 marks)
- (b) Using **Source 1** and your pie chart suggest possible problems involved in the recycling or disposal of waste material. (6 marks)
- (c) (i) What percentage of the total amount of carbon dioxide emitted comes from the transport of the food items by air? (Source 2) (2 marks)
  - (ii) What was the percentage increase for the approximate total distance that food imports have travelled by air in the last ten years? (Source 2) (2 marks)
  - (iii) Identify **two** different types of pollution from the data in **Source 2**. (2 marks)
- (d) Why might the data in **Source 3** be of limited value? (9 marks)
- (e) **Sources 1, 2** and **3** refer to different pollution issues. Explain what could be done to reduce levels of pollution. (9 marks)
- (f) To what extent do you agree with the view that we should reduce food imports and rely more on food produced in the UK? (12 marks)
- (g) Using **Source 4** as a starting point how far do you agree that pressure groups can make a difference on environmental issues? (12 marks)

#### **END OF QUESTIONS**

There are no questions printed on this page

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## Insert

Source Booklet for use with Question 1

Study Sources 1 to 4 provided below and then answer Question 1.

Source 1
WEIGHTS OF MATERIALS COLLECTED FROM
HOUSEHOLDS FOR RECYCLING (thousands of tonnes)

Material	Thousand tonnes		
Glass	470		
Paper and card	1 100		
Compost	1 320		
Scrap metal	420		
Plastics	90		
Total	3 400		

Source: Adapted from Department for Environment, Food and Rural Affairs 2004

EXAMPLES OF THE ENVIRONMENTAL COST OF IMPORTED ORGANIC FOOD ITEMS 2004

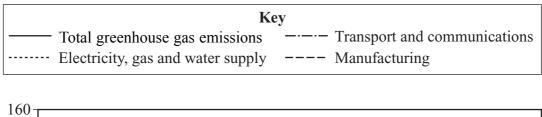
Food Item	Method of Travel	Carbon Dioxide emitted (grammes)	Distance travelled (km)
Dutch cucumbers (0.5kg)	sea	10	100
Danish butter (0.5kg)	sea	30	1 190
Italian lemons (0.4kg)	road	40	1 740
Spanish peppers (0.6kg)	road	60	1 540
Spanish aubergines (1.2kg)	road	130	1 540
3 bottles New Zealand wine (3.6kg)	sea	830	23 000
Californian cherries (0.6kg)	air	3 000	8 780
Mexican avocados (1.1kg)	air	5 600	8 940
Australian beef (1.6kg)	sea	340	21 470
Total for examples		10 040	68 300

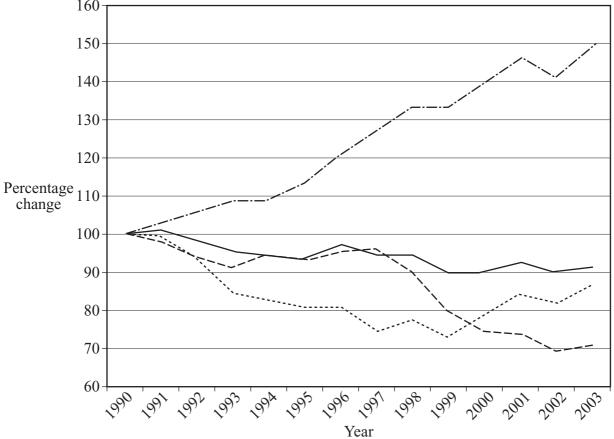
In the last ten years the approximate total distance that food imports have travelled by air has increased from 22 million km to 27 million km.

Source: Sustain: The Alliance for better food and farming, www.sustainweb.org

Source 3

Percentage change in greenhouse gas emissions from 1990–2003





Source: www.statistics.gov.uk

**Turn over for Source 4** 

#### **Source 4**

Source 4 is not reproduced here due to third-party copyright constraints.

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