General Certificate of Education June 2006 Advanced Subsidiary Examination



# GENERAL STUDIES (SPECIFICATION B) Unit 3 Space

GSB3

Monday 22 May 2006 1.30 pm to 2.45 pm

#### For this paper you must have:

- an 8-page answer book
- · 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 your answer book. Cross through any work you do not want marked.

### **Information**

- The maximum mark for this paper is 60.
- The marks for questions are shown in brackets.
- You are reminded of the need for good English and clear presentation in your answers. Parts (b), (d), (e), (f) and (g) should be answered in continuous prose. Quality of Written Communication will be assessed in these answers.

M/Jun06/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 estimated sales (in millions of £) of UK organic foods by type for the years 2001 to 2003.
  - **Source 2** shows the use of pesticides in the UK between 1990 and 2004.
  - **Source 3** shows the emissions of greenhouse gases (in million tonnes) between 1990 and 2012 in the UK.
  - **Source 4** shows a cartoon.

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

- (a) Using **Source 1** construct and label a pie chart showing the estimated sales of UK organic foods by type for the year 2002. (6 marks)
- (b) Using **Source 1** suggest reasons for the differences in the sales of organic foods by type over the years 2001 to 2003. (6 marks)
- (c) (i) Work out the mean of the weight of pesticides used between 1990 and 2004. (Source 2) (2 marks)
  - (ii) Work out the percentage increase in the area of land treated from 1990 to 2004. (Source 2) (2 marks)
  - (iii) The weight of pesticides used has decreased overall since 1990.

    Identify **two** main factors which might have contributed to this decrease.

    (Source 2) (2 marks)
- (d) Why might the data in **Source 3** be of limited value and to whom? (9 marks)
- (e) **Source 3** suggests a decreasing trend in the emissions of greenhouse gases. What factors might have contributed to this? (9 marks)
- (f) 'The use of GM (Genetically Modified) crops will improve the availability of food for an ever increasing world population.'

  How far is this a matter of *fact*, and how far a matter of *opinion*? (12 marks)
- (g) The reduction of pollution both on land and in the air should be a priority for all countries.

Using the sources as a starting point, how far do you agree that this is an achievable aim?

(12 marks)

There are no questions printed on this page

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# Insert

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Source Booklet for use with Question 1

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

Source 1 Estimated sales of UK organic foods by type between 2001 and 2003 (Sales given in millions of  $\pounds$ )

Food Type	2001	2002	2003
Meat	16	29	44
Eggs	22	21	21
Dairy products	21	47	53
Cereals	11	14	20
Fruit & Vegetables	30	39	44
Total	100	150	182

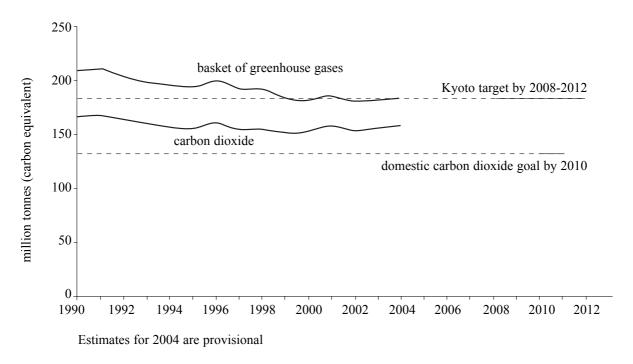
Source: adapted from www.soilassociation.org, January 2005

Source 2
Use of pesticides in the UK between 1990 and 2004

YEAR	TOTAL AREA TREATED (Millions of hectares)	TOTAL WEIGHT USED (Millions of kg)
1990	45.0	34.4
1992	46.4	31.3
1994	47.7	33.7
1996	55.0	35.3
1998	61.5	35.1
2000	59.6	32.9
2002	60.0	30.8
2004	60.8	31.4

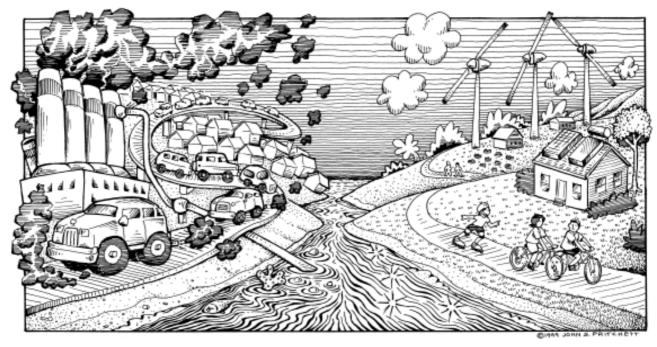
Source: adapted from Pesticide Usage Statistics, 2005

Source 3
Emissions of greenhouse gases (United Kingdom) between 1990 and 2012



Source: DEFRA (www.netcen.com)

Source 4



Source: "Global Warming" Illustration for Environment Hawaii, August 1999, © John Pritchet

### **END OF SOURCES**

### There are no sources printed on this page

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