



General Certificate of Education
Advanced Level Examination
January 2011

General Studies (Specification A)

GENA4

Unit 4 A2 Science and Society

Tuesday 1 February 2011 9.00 am to 11.00 am

For this paper you must have:

- a copy of the Pre-release Case Study Source Material (enclosed)
- a 12-page answer book.

Time allowed

- 2 hours

Instructions

- Use black ink or black 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 GENA4.
- Answer **all** questions in Section A and **one** question from Section B.
- Use your own words, rather than simply repeating those used in the sources, to show your understanding of the points being made.

Information

- The maximum mark for this paper is 70 (45 for Section A and 25 for Section B).
- This paper consists of two sections.
Section A contains four compulsory questions based on the pre-release Case Study Source Material provided earlier and the new source provided in this examination paper (a new copy of the pre-release material is provided as an insert to this question paper).
Section B contains four alternative essay questions based on Science and Society.
- Write your answers in continuous prose as if you are addressing the intelligent general reader. You will be marked on your ability to use good English, to organise information clearly and to use specialist vocabulary where appropriate.
- Where appropriate use examples to illustrate your answer.

Section A

Answer **Questions 01 to 04** using pre-release **Sources A to E** and new **Source F** provided below.

The total for this section is 45 marks.

Source F

Supermarkets battle to be the greenest of all

William Morrison is launching a new scheme to help slash the 12 million tonnes of food waste created in Britain each year. The initiative from the Bradford-based supermarket giant – called Great Taste, Less Waste – is designed to tackle the 6.7 million tonnes of food that ends up in customers' rubbish bins. The supermarket group plans to put up signs in its stores and post tips and advice on its website – such as putting apples in the fridge to make them last 14 days longer.

The big four supermarkets – Tesco, Sainsbury's, Asda and Wm Morrison – are competing to be seen as the greenest, attempting to measure up to the environmental aspirations of some of their customers while seeking to inspire others to go green – a race to become the greenest retailer in Britain first started by the two high-street giants, Tesco and Marks & Spencer.

As the green agenda has become more competitive and focused, all the supermarkets have recognised that a big part of their carbon dioxide emissions come from their supply chain, particularly from shipping. As well as targets to reduce emissions, the supermarkets are also responding to pressure from customers.

David North, community and government director at Tesco, acknowledged the role customers are playing in pushing green initiatives in saying that: "Every great change in society and the economy is achieved by the public. Therefore, as a consumer-facing business, we can play a great part in achieving a green revolution. We have to get back to being a low-carbon economy and it is in the best interests of Tesco to be green because we believe all successful businesses will be green."



Julian Walker-Palin, head of corporate policy for sustainability and ethics at Asda, said that a desire to be green cuts across all geographies and customer income brackets. When Asda first tried to reduce carrier-bag display, by putting them under the checkout rather than on display, the initiative was taken up quickest at Asda stores with the lowest-income customers. "People felt that they could do their bit for the environment by not taking a carrier bag and it proved you do not have to be rich to be sustainable."

Asda has pledged to send zero waste to landfill by 2010 and has created a special taskforce packed with outside experts who can advise the retailer on how to reduce packaging waste. Some experts believe that the green initiatives could even make the retailers more money.

Mike Barry, head of sustainable business at Marks & Spencer, said that in the past six months its Plan A green policy has become cost-neutral. Analysts believe that, in time, it could even make a profit for the company. M&S announced the plan in early 2007 and pledged to invest £200 million in the initiative – but as cost savings have borne fruit, they have already offset the green investments made by the company.

Source: adapted from NICK RODRIGUES, 'Supermarkets battle to be the greenest of all', *The Times*, 17 May 2009

0	1
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Using the data and other information in **Source A**, discuss the potential advantages of recycling and whether it is being given sufficient priority in the United Kingdom.

(11 marks)

0	2
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Using evidence from **Sources B** and **C**, examine the issues faced by councils responsible for the disposal of domestic waste in the United Kingdom.

(12 marks)

0	3
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Using evidence from **Source D**, and your own knowledge, discuss the case for and against the policy of collecting household rubbish one week and organic waste the next week.

(11 marks)

0	4
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Using information from **Sources E** and **F**, examine the role that can be played by shoppers and retailers in reducing food waste, excess packaging and the availability of carrier bags.

(11 marks)

Turn over for Section B

Turn over ►

Section B

Answer **one question only** from **05** to **08**.

There are 25 marks for each question.

Where appropriate use examples to illustrate your answer.

EITHER**0 5**

'The simple fact is that organic food is little more than a middle-class fad made more exclusive by high prices. Scientific research has proved that there is no advantage to the consumer in buying organic produce.'

Discuss the claim made above that scientists have 'proved' that there are no advantages to the customer buying organic produce.

Explain why some people prefer to buy organic foodstuffs even though they cost more than non-organic equivalents.

OR**0 6**

'The image of sport has become tarnished. Money and commercial interests dominate and footballers, in particular, are greatly overpaid. Cheating, sometimes involving the use of drugs, is increasingly common.'

To what extent do you agree with this assertion?

Discuss whether it is possible, or desirable, to return to an age when sport was dominated by enjoyment and ethical behaviour.

OR**0 7**

'Because pandemic illnesses are rare, but occur on a large scale, people inevitably fear the worst. It is essential that medical professionals and politicians co-operate to ease the fears of those concerned.'

Explain how the nature of pandemic illnesses and the beliefs about them create fear among the population.

Discuss the effectiveness of efforts made by medical professionals and politicians to warn, protect and care for individuals during the swine flu outbreak in the UK during 2009–2010.

OR

0	8
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'If more people – parents, teachers, the drinks industry, politicians and teenagers themselves – took more responsibility, society would be troubled far less by problems associated with binge drinking among young people.'

Explain why many teenagers find the consumption of alcohol and binge drinking so attractive despite its well-publicised harmful effects.

Discuss the methods that can be used to tackle the problem of binge drinking among young people.

END OF QUESTIONS

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