



**General Certificate of Education (A-level)
January 2012**

General Studies A

GENA2

(Specification 2760)

Unit 2: Science and Society (AS)

Report on the Examination

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Unit 2 Section

GENA2 AS Science and Society

This component is an objective test for which the following list indicates the correct answers used in marking the candidates' responses.

1.1	B	1.16	D
1.2	D	1.17	C
1.3	B	1.18	A
1.4	C	1.19	B
1.5	A	1.20	B
1.6	C	1.21	C
1.7	A	1.22	C
1.8	B	1.23	C
1.9	D	1.24	D
1.10	C	1.25	A
1.11	D	1.26	D
1.12	D	1.27	A
1.13	B	1.28	C
1.14	C	1.29	A
1.15	D	1.30	A

Unit 2 Section A

(Questions 1.1 – 1.30)

General

Based on candidates' performance, the level of challenge provided by the sources and items proved to be very much in line with the previous papers of recent years.

The overall facility for the items was 65%, exactly in line with previous recent examinations.

Consequently the number of items with an individual facility of 65% or more was also very similar – this year being achieved for 1.1, 1.2, 1.4, 1.6, 1.8, 1.9, 1.13, 1.14, 1.17, 1.18, 1.19, 1.22, 1.23, 1.26, 1.27, 1.28, and 1.29.

No item had a facility of 35% or less, although 1.11 and 1.30 had facilities below 40%.

The items proved very effective at discriminating between stronger and weaker candidates and overall this factor was slightly better than in January 2011. Items discriminating most effectively were 1.13 (for which 75% of candidates gave the correct response), 1.16 (56%) and 1.25 (64%).

Two items discriminated less well than expected; 1.7 (facility 54%) and 1.29 (facility 78%).

There was some evidence that at least some candidates were weak at using numerical information provided within the source.

1.7 (discriminating relatively poorly) required candidates to combine relative values from the pie charts with numerical data given descriptively within the text, and 1.11 (comparatively low facility) required candidates to identify the relevant values and then calculate a particular growth factor. The most popular incorrect answer to 1.7 was C, power stations, and in 1.11 incorrect responses were mostly shared fairly evenly between B and C.

Points of information on other items:

In 1.3 a clear majority of those not knowing the correct response believed water vapour to be the answer. It was the 'odd one out' as not a gas, but this does contribute to retaining the Earth's heat.

Some candidates found it difficult to identify key reasons for, or the source of, particular assertions in the source. For example in 1.20 only 43% were able to identify the correct response. A clear majority of those giving an incorrect response opted for A, presumably influenced by the wording given within the source, this phrase however was not the reason for the NFU's claim.

Similarly, in 1.25 only a little over half of candidates were able to give the best reason for why Source B could be considered biased, with incorrect responses being spread across all the other options.

Unit 2 Section B

General Comments

The specification covers both science and society, and the examination questions attempt to include both of these elements of the specification. All questions are in grouped in pairs (02 and 03, 04 and 05, 06 and 07), and the candidate must select one pair of questions to answer. The pattern of the paper is that the first question in a pair is likely to focus primarily on scientific issues or methods, while the second question is likely to focus on social, economic, political or ethical issues related to the topic.

Each question is marked separately, with the first question being allocated 17 marks, and the second allocated 18 marks. Marks are allocated for content based on Assessment Objectives AO1, AO2 and AO3 and for communication based on Assessment Objective AO4. Examiners are encouraged to use the full mark range available.

The questions include a short piece of source material, which is intended to act as a stimulus to candidates. The questions do not require detailed source analysis, but candidates can refer to the source in their response and may well be able to make use of it to inform their answers. Candidates are, however, expected to answer the questions using predominantly their own knowledge. The wording of the questions usually gives a clear indication of how candidates might structure their answers.

The distribution of responses to the questions in this examination was broadly similar in the majority of centres, with the following distribution across the whole of the entry:

Questions 02 and 03	Questions 04 and 05	Questions 06 and 07
45.01%	41.90%	13.09%

In general, examiners felt that questions 02/03 and 04/05 were accessible and that candidates engaged with them effectively. The mean marks for the first of the pairs of questions (i.e. 02 and 04) were higher than for the second of the pairs (03 and 05), despite there being more marks available for the latter questions.

Questions 06/07 were less popular, but the mean marks for both of these questions were noticeably higher than for the other questions. Question 07 scored slightly higher than 06 in absolute terms, but 06 scored the highest mean mark as a percentage of the maximum marks available.

For the most part, candidates seem to have been appropriately prepared for the examination and the standard of responses was generally good. The better answers were well structured, with clear paragraphs, an introduction and conclusion, used relevant examples, and focused clearly on the actual question. Weaker candidates often failed to respond to the actual wording of the question, and/or tended to paraphrase the source in their answers.

Particular problems with some questions this series were that [a] some candidates simply used and re-worded information in the stimulus extract, and [b] some candidates failed to read the question correctly.

It would be helpful if centres reminded candidates that the purpose of the extract is to stimulate thought about the questions – and it may well contain useful information that can be useful in one or both questions. But simply regurgitating information from the extract is unlikely to gain many marks.

The importance of reading the question carefully should be self-evident, but candidates should nevertheless be reminded that it could make the difference between a very good mark and a poor one.

Question 02

Examiners were looking for an explanation of how health advances have contributed to an ageing population, and an understanding that wider environmental, employment and demographic changes have also been significant. The best answers achieved this, but many candidates restricted themselves to a narrow list of medical advances, while some interpreted 'environmental' factors as referring to walks in the countryside.

Question 03

This question required candidates to consider a range of consequences of the ageing population, in terms of economic pressures arising from pension, health and social care costs, economic benefits from the 'grey pound', social issues including benefits and pressures on families, and the political impact of the 'grey vote'. There were some very full and well-balanced answers but, rather surprisingly for some examiners, many candidates showed a distinctly negative attitude to older people, focusing solely on the perceived welfare costs, while simultaneously blaming older workers for keeping young people out of jobs.

Question 04

This question gave candidates the opportunity to explain the specific effects of alcohol on the human body, and to examine the short and longer term effects on health. There were some very clear and detailed answers to the question, covering all aspects fully. However, this was one of the questions for which weaker candidates tended to re-word the information in the extract with only a limited attempt to frame their response in terms of the actual question.

Question 05

This question had the least satisfactory response overall. The question invited candidates to discuss issues arising from ways of reducing harm caused by alcohol. These could have included consideration of further regulation and taxation of alcohol products and the possible benefits and problems of such actions. However, a significant number of candidates did not read the question accurately, or did not understand it, and simply wrote about the harm caused by alcohol, often in terms little different from the answer to question 04, and (again) often just re-wording the information in the extract.

Question 06

Although this question (along with 07) was not as popular as the others, it was in general answered more fully and effectively. Good responses referred to the diagnostic and therapeutic uses of radiation in medicine, its use in industry, as well as in power generation. They were also able to outline risks in a balanced way. Weaker answers tended to consider a more restricted range of uses.

Question 07

Examiners were looking for a balanced and well-informed assessment of the arguments for and against the use of nuclear power for energy generation. Better answers also demonstrated an awareness of the context of energy production and of a range of different alternative fuels. Strong answers were comprehensive and objective. Weaker answers were narrower, biased in one direction or another, or lost focus in a discussion of global warming.

Mark Ranges and Award of Grades

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