



General Certificate of Education

General Studies 1761 *Specification A*

GENA2 Science and Society

Report on the Examination *2010 examination - June series*

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Unit 1 Section A

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

Unit 2 Section A

(Questions 1.1 – 1.30)

Candidates performed at a very similar level to how they did in June 2009, on a paper that was believed to be of a very similar standard.

The overall facility was 64% and the questions generally discriminated very satisfactorily between the strong and weaker candidates.

As usual many questions had a facility of 65% or more (3, 9, 10, 12, 13, 15, 17, 21, 23, 24, 25, 27, 29) and the discrimination on these questions was in most cases very good, with none giving cause for concern.

As last year, only one question (26) had a facility below 35%. This question also discriminated less well than had been hoped and was the only item with a distractor being more popular than the key. This question required candidates to decide which was the most appropriate description for the passage and the statement asserting that the passage was factual and reliable attracted more responses than the others. Clearly it was an article on a scientific theme but it is also expected that candidates should be able to be critical and questioning of passages when appropriate, rather than perhaps relying on first impressions.

The only other question that discriminated less well than might have been expected was question 20 although in this case 63% of candidates were able to select the correct key, with the majority of other candidates failing to appreciate some people's concerns about possible leaks of radioactive material.

Candidates need to take care to answer the questions set and not just look for matching text or figures in the questions.

For example, in question 1, although 64% selected the correct answer, the vast majority of the others chose Option B, presumably influenced by the 20% given in both the question and passage.

Also in Question 12, although 85% of candidates identified the correct response, the vast majority of the others selected A, presumably through not reading the passage sufficiently carefully.

Question 22 had a facility of 55% but 35% selected Option C, not appreciating that the number of nuclear reactors is due to increase, as well as the amount of electricity generated by such reactors.

In Question 24 statement 2 caused more problems for candidates than statement 1, with 25% believing that it was not factually correct.

Many candidates appeared to be unfamiliar with the accidents at Chernobyl and Three Mile Island, for while 36% of candidates selected the correct response in question 28, nearly as many felt that the Reason was false and over a quarter of candidates indicated that they felt the Assertion was false. The question nevertheless discriminated satisfactorily.

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 (2 and 3, 4 and 5, 6 and 7), 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 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 2 & 3 | Questions 4 & 5 | Questions 6 & 7 |
|-----------------|-----------------|-----------------|
| 20.46% | 32.85% | 46.69% |

In general, examiners felt that the sources and questions were accessible and that candidates engaged with the examination in a very positive way. Candidates seem to have been better prepared for this examination than for some in the past. The standard of responses was generally good, though there was some variation from centre to centre. 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 tended to do little more than paraphrase the source in their answers.

With the exception of questions 6 and 7, marks for each question in a pair were broadly similar. This seems to demonstrate that candidates are now more aware of the need for scientific content in the first question, as well as the need for social, political and economic content in the second of the pair of questions.

Question 2

In this question, examiners were looking for explanations of assisted reproduction techniques, four of which were mentioned in the source. For the most part, this was answered well with some candidates showing excellent understanding, with detailed and relevant science. There was confusion in some answers between artificial insemination and in vitro fertilisation. Weak answers tended to be limited to basic lists, with little or no explanation.

Question 3

This question asked for reasons for the use of freezing techniques in assisted reproduction and for a discussion of the associated ethical issues. Some clear examples were outlined in the source. Strong answers looked at a wider range of reasons and concerns than in the source, and some demonstrated thoughtful and sophisticated understanding of the complexities of the topic. Weaker responses did little more than elaborate on the information in the source, often with highly judgemental views.

Question 4

This question offered opportunities for both breadth and depth in answers. Good responses emphasised the importance of water for the human body and included detail on its role in bodily functions. They were also able to identify a wide range of ways in which water is significant for human activity – for example, in agriculture, transport, energy, sport and recreation. Less satisfactory answers were more narrowly focused and/or attempted to discuss water scarcity – an issue more appropriate for question 5.

Question 5

Examiners were looking for a discussion of the causes and consequences of water scarcity, some of which were mentioned in the source. Strong candidates commented on a wide range of causes, including industrialisation and urbanisation as well as population growth and climate change, and a wide range of possible consequences, including migration and political/military conflict as well as the more obvious drought and famine. Weaker responses were more narrowly focused, often with simple anecdotal descriptions of water wastage and hosepipe bans.

Question 6

This popular question was looking for information on the benefits of computers and the internet for individuals and families. Many candidates wrote knowledgeably on the many uses of the internet, but relatively few included any reference to the uses of computers other than as a means of accessing the internet. By not addressing this aspect of the question, candidates were disadvantaging themselves in terms of marks. Similarly, some candidates failed to focus on individuals and the family, writing at length on the benefits of the internet to business users. Candidates should be advised of the importance of dealing with the specific requirements of the question.

Question 7

Although this was, along with question 6, the most popular question on the paper, it was the least well done. It required a discussion of how social differences, four examples of which were in the source, influence the benefits to be gained from information and communication technology. Relatively few candidates dealt with all of the source examples, let alone explored other areas of social difference. A number of answers failed to grasp the meaning of the question, instead commenting variously on China's internet policy, the lack of computers in Africa, and how social networking sites overcome what were perceived to be social differences. Although there were some effective discussions of the possibility of more equal access to technology, the earlier misunderstandings limited the number of successful responses to this aspect of the question. Again, the lesson for centres is that candidates must read the question carefully and be aware of the content of the source.

New Numbering System and New Style Answer Book

Centres are thanked for preparing so thoroughly their candidates to work with the new numbering system and the new style answer book. The majority of candidates responded well to the changes to the June 2010 exams, but where difficulties were experienced, centres are asked to draw candidates' attention to the comprehensive range of guidance material that is available on this subject in order that they are confident about what is required of them in future examinations. Support available on this issue includes Guides for teachers and students, and specimen question papers and mark schemes showing the changes in action. All documents published in support of the changes to exams can be accessed via notices published on all qualification homepages, all subject notice boards, and on the parent and student area of the web.

Mark Ranges and Award of Grades

Grade boundaries and cumulative percentage grades are available on the **results statistics** page of the AQA Website - <http://www.aqa.org.uk/over/stat.html>