

# General Studies

Advanced GCE

Unit **F734**: Culture, Science and Society: Making connections

## **Mark Scheme for January 2012**

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All examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes should be read in conjunction with the published question papers and the report on the examination.

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**Annotations**

| <b>Annotation</b> | <b>Meaning</b>  |
|-------------------|---|
| Yes               | recognises a point worthy of credit   |
| Dev               | a developed point or development of a point                                       |
| No                | a content error   |
| NAQ               | not answering the question  |
| Eg                | appropriate examples  |
| Sp/G/Eng          | spelling, grammar and language error; you are not expected to correct all of them |
| (...)             | indicates a choice or a key phrase OR   |
| Key               | written beside an underlined choice or key phrase                                 |
| Rubric            | rubric infringement   |
| D                 | description   |
| R                 | reason  |
| Rep               | repetition, often of the question   |
| Ev                | evaluation  |

**Subject-specific Marking Instructions****Assessment Objectives****AO1 Demonstrate Knowledge and Understanding**

- Demonstrate relevant knowledge and understanding applied to a range of issues, using skills from different disciplines.

**AO2 Analysis and Evaluation**

- Marshal evidence and draw conclusions; select, interpret, evaluate and integrate information, data concepts and opinions.

**AO3 Understanding Knowledge**

- Demonstrate understanding of different types of knowledge, appreciating their strengths and limitations.

**AO4 Communication**

- Communicate clearly and accurately in a concise, logical and relevant way.

**Stages to an essay mark**

Read and annotate **fully** the candidate's response, using any question specific annotations agreed at Standardisation.

Review your annotation, and then consider at which level the answer is located.

Consider its position within the level and a possible mark.

**Write a full summative comment referring to the AO statements from the Generic Mark Descriptors for guidance.**

|    |     |  |
|----|-----|--|
| Eg | AO1 | good knowledge<br>very limited knowledge and eg                |
|    | AO2 | examples given   |
|    | AO3 | personal experience relevant<br>restricted personal experience |
|    | AO4 | clearly written<br>Inaccurate Spg                              |

You must make comments additional to the AO statements but **NOT** instead of them. Such comments must be positive and specific, eg *excellent use of specialist knowledge AO1, notable for clarity and elegance AO4, some unusual egs well developed, well integrated AO2, the inclusion of personal experience and different perspectives AO3.*

Enter the final mark in a circle.

**If bullet points are used where continuous prose is asked for, a maximum of 30 marks is available for a 50-mark question.**

| Assessment objectives balance |     |     |     |
|-------------------------------|-----|-----|-----|
| AO1                           | AO2 | AO3 | AO4 |
| 10                            | 15  | 15  | 10  |

| Question | Answer   | Marks | Guidance / Levels of response  |
|----------|--|-------|--|
| 1        | <p><b>This question involves:</b></p> <ul style="list-style-type: none"> <li>• assessing the extent to which any advantages of developing GM food production may outweigh any disadvantages</li> <li>• candidates covering the cultural, scientific and social issues in their answer.</li> </ul> <p><b>General Comment:</b><br/>The sources identify some strengths of GM foods, show a picture of the 'popular' concept of GM foods, and identify an opposite stance offered by The Soil Association. GM foods are often thought of as science interfering with food produce but at the same time further research indicates that they have the potential to offer solutions to problems encountered worldwide.</p> <p>There are opportunities to connect with all domains when responding to this answer. Science has given mankind the opportunity to develop various types of seed which are resistant to drought, or have particular strengths. Culturally there is the issue of changing the attitudes of the public in order to make GM produce more acceptable. From a social perspective there are cost considerations but also there are wider economic and political issues relating to African countries for example.</p> | 50    | <p><b>Suggested annotation</b><br/><b>Intro; Source+ =</b> development of source;<br/><b>Cu/Sc/So =</b> domain connection;<br/><b>Ext =</b> extent;<br/><b>Conc =</b> conclusion.</p> <p>These descriptors are intended as a first guide to examiners. They indicate the characteristics of a top of level answer. Marks within a level are awarded when an answer does not include all the parts or qualities shown in the descriptor. Answers which are 'borderline' should be awarded the lowest mark in a band.</p> <p><b>Level 5 (41-50 marks)</b> - In addition to an articulate, cogent and comprehensive answer (AO4) which is supported by a very good range of knowledge (AO1), candidates will examine each domain clearly. They will consider all aspects of the question and make use of all aspects of the source material. They will carefully evaluate the advantages and disadvantages of GM produce and will also show very good awareness of the alternative ways in which information can be used and interpreted. (AO3) There will be a sound conclusion which will offer an assessment of the extent to which any advantages might outweigh disadvantages or vice versa (AO2).</p> |

| Question | Answer  | Marks | Guidance / Levels of response   |
|----------|---|-------|---|
|          | <p><b>Issues that may be raised include the following:</b></p> <p><b>Cultural</b></p> <ul style="list-style-type: none"> <li>• Sustaining communities in areas of hardship and adverse weather conditions (e.g. drought, extreme cold, flooding, earthquakes)</li> <li>• Science has offered choice in other aspects of life, so why not food production?</li> <li>• Power of the Media to influence attitudes by celebrating achievements but also highlighting shortcomings</li> <li>• Attitudes of the public to GM foods: lack of knowledge and an unwillingness to experiment in using new food alternatives</li> <li>• Religious groups regard GM as ‘interfering with God’s will’.</li> </ul> <p><b>Scientific</b></p> <ul style="list-style-type: none"> <li>• Ability to create seeds which are resistant to damage and destruction</li> <li>• ‘Year round’ produce irrespective of the climate</li> <li>• Fewer food shortages though possibly at a cost</li> <li>• Do scientists understand whether these seeds might mutate, and the effects this might have</li> <li>• What happens if GM foods are fed to livestock?</li> <li>• GM products might interfere with the delicate ecological balance of nature.</li> </ul> <p><b>Social</b></p> <ul style="list-style-type: none"> <li>• A method of eliminating starvation and satisfying consumer demand</li> <li>• Better crop yields for farmers through intensive farming</li> </ul> |       | <p><b>Level 4 (31-40 marks)</b> - Ideas will be communicated in a clear and coherent manner (AO4) which demonstrates a good range of knowledge. (AO1) Candidates will examine each domain clearly. They will consider all aspects of the question. They will show an appreciation of the ways in which information can be interpreted (AO3) and the conclusion will offer a competent conclusion which offers an assessment of the extent to which any advantages outweigh disadvantages or vice versa (AO2).</p> <p><b>Level 3 (21 - 30 marks)</b> - Ideas will be communicated clearly. (AO4) candidates will show an adequate understanding of the concepts involved (AO1) and will probably examine two or three domains. They will show an awareness of the ways in which information can be interpreted. (AO3) There will be some analysis of the extent to which any advantages outweigh disadvantages or vice versa and some conclusions will be drawn (AO2).</p> <p><b>Level 2 (11-20 marks)</b> - Candidates will produce a response which lacks clarity (AO4), and demonstrates a limited range of knowledge (AO1). They will consider one or two domains but demonstrate a limited appreciation of the issues raised by GM produce. (AO3) There will be limited analysis of information offered and limited conclusions about advantages or disadvantages (AO2).</p> <p><b>Level 1 (0-10 marks)</b> - These candidates will demonstrate a restricted understanding of the cultural, scientific and social issues raised by GM produce (AO1). Their interpretation will be poor (AO2) with a very restricted appreciation of advantages or disadvantages (AO3). They will communicate with little clarity (AO4.)</p> <p>Exceptionally candidates answering only part of the question can be awarded marks up to the top of Level 3. If an examiner is uncertain about scoring an answer they should consult their Team Leader.</p> |

| Question | Answer  | Marks | Guidance / Levels of response |
|----------|---|-------|-------------------------------|
|          | <ul style="list-style-type: none"> <li>• Costs for consumers might be higher due to increased production costs</li> <li>• The education of the public to accept GM food products may take time, patience and money</li> <li>• Antagonism from those who have traditionally 'grown their own' and the effect this might have on small businesses and self sufficiency</li> <li>• There are a number of benefits and threats for rich or poor countries.</li> </ul> <p><b>To what extent...</b><br/>Candidates might consider that the advantages do not outweigh the threats. An argument which shows an appreciation of issues and a rational discussion with examples either from the news or from personal experience are expected. Clearly in a time when changing weather patterns are creating problems for food production GM foods can be seen as an advantage and a solution.</p> |       |                               |

| Assessment objectives balance |     |     |     |
|-------------------------------|-----|-----|-----|
| AO1                           | AO2 | AO3 | AO4 |
| 10                            | 15  | 15  | 10  |

| Question | Answer   | Marks | Guidance / Levels of response  |
|----------|--|-------|--|
| 2        | <p><b>This question involves:</b></p> <ul style="list-style-type: none"> <li>discussing the extent to which it is possible to be proud to be British in 2012</li> <li>candidates considering the cultural, scientific and social issues in their answer.</li> </ul> <p><b>General Comment:</b><br/>'Broken Britain' was a theme in the 2010 elections. The media are always ready to criticise negatively but do not appear as quick to praise achievements.</p> <p><b>Connections:</b><br/>There are opportunities for connections between the domains for example NHS and access to healthcare for all, or a Free Press criticising the Government's handling of scientific issues.</p> <p><b>Issues include:</b></p> <p><b>Cultural</b></p> <ul style="list-style-type: none"> <li>Mixing of ethnicities – successes and failures in different regions</li> <li>Religious tolerance – acceptance of many religions but reluctance to acknowledge as mainstream</li> </ul> | 50    | <p><b>Suggested annotation</b><br/><b>Intro; Source+</b>= development of source;<br/><b>Cu/Sc/So</b> = domain connection;<br/><b>Ext</b>= extent<br/><b>Conc</b> = conclusion.</p> <p>These descriptors are intended as a first guide to examiners. They indicate the characteristics of a top of level answer. Marks within a level are awarded when an answer does not include all the parts or qualities shown in the descriptor. Answers which are 'borderline' should be awarded the lowest mark in a band.</p> <p><b>Level 5 (41-50 marks)</b> - In addition to an articulate, cogent and comprehensive answer (AO4) which is supported by a very good range of knowledge (AO1), candidates will examine each domain clearly. They will consider all aspects of the question and make use of all aspects of the source material. They will identify impacts which Britain has had on each of the domains and will also show very good awareness of the alternative ways in which information can be used and interpreted. (AO3) There will be a sound conclusion which will offer an assessment of the extent to which we can be proud to be British (AO2).</p> <p><b>Level 4 (31-40 marks)</b> - Ideas will be communicated in a clear and coherent manner (AO4) which demonstrates a good range of knowledge. (AO1) Candidates will examine each domain clearly. They will consider all aspects of the question. They will show an appreciation of the ways in which information can be interpreted (AO3) and the conclusion will offer a competent assessment of the extent to which we can be proud to be British (AO2).</p> |

| Question | Answer   | Marks | Guidance / Levels of response  |
|----------|--|-------|--|
|          | <ul style="list-style-type: none"> <li>• The monarchy –celebration of length of reign but the monarchy does not necessarily reflect today’s Britain</li> <li>• British ‘stiff upper lip’ – global recognition of ‘Britishness’ but causes conflict with some cultures</li> <li>• Literature – success in film, literature, television but sometimes with questionable subject matter and controversial topics.</li> </ul> <p><b>Scientific</b></p> <ul style="list-style-type: none"> <li>• World leaders in industry – possibly in the past but how far today with technological revolution. May originate in Britain but develop elsewhere</li> <li>• Current research work in a number of fields – many laudable examples, but some are controversial</li> <li>• The NHS – globally acknowledged for its excellence but at the same time underfunded and with unevenly distributed resources.</li> </ul> <p><b>Social</b></p> <ul style="list-style-type: none"> <li>• Education –today’s generation is the best educated but most under funded</li> <li>• ‘The Olympic Games’ to be held in London 2012 – promotes national pride and esteem but at great cost</li> <li>• Leadership – Britain has produced many great statesmen but more recently there has been doubt cast on our ability to elect an efficient government.</li> </ul> |       | <p><b>Level 3 (21 - 30 marks)</b>- Ideas will be communicated clearly. (AO4) candidates will show an adequate understanding of the concepts involved (AO1) and will examine two or three domains. They will show an awareness of the ways in which information can be interpreted. (AO3) There will be some analysis of the extent to which we can be proud to be British and some conclusions will be drawn (AO2).</p> <p><b>Level 2 (11-20 marks)</b> - Candidates will produce a response which lacks clarity (AO4), and demonstrates a limited range of knowledge (AO1). They will consider one or two domains but demonstrate a limited appreciation of the issues. (AO3) There will be limited analysis of information offered and limited conclusions about whether we can be proud to be British will be drawn (AO2).</p> <p><b>Level 1 (0-10 marks)</b> - These candidates will demonstrate a restricted understanding of the cultural, scientific and social impacts which Britain has had (AO1). Their interpretation will be poor (AO2) with a very restricted appreciation of whether we can be proud to be British (AO3). They will communicate with little clarity (AO4).</p> <p>Exceptionally candidates answering only part of the question can be awarded marks up to the top of Level 3. If an examiner is uncertain about scoring an answer they should consult their Team Leader.</p> |

| Question | Answer   | Marks | Guidance / Levels of response |
|----------|--|-------|-------------------------------|
|          | <p><b>Extent to which it is possible to be 'proud to be British?</b></p> <p>Candidates will have a number of opinions but underpinning the notion of being British is a right to freedom through tolerance of others, and in particular freedom of speech. This section offers opportunities for connections to be made. Our past dominance in the world (science, social) has led to some issues in countries (cultural).</p> |       |                               |

## APPENDIX 1

## Generic Mark Scheme for questions worth 50 marks.

## Levels descriptors

## Level 5

|            |  |              |
|------------|--|--------------|
| <b>AO1</b> | <ul style="list-style-type: none"> <li>select, use and integrate a very good range of relevant knowledge</li> <li>show a good understanding of the concepts involved</li> </ul>  | <b>41-50</b> |
| <b>AO2</b> | <ul style="list-style-type: none"> <li>interpret and analyse issues and problems well and evaluate them appropriately</li> <li>use evidence to develop complex reasoned arguments and draw sound conclusions on the evidence</li> </ul>  |              |
| <b>AO3</b> | <ul style="list-style-type: none"> <li>demonstrate very good awareness of the differences between types of knowledge</li> <li>have a very good appreciation of the strengths and limitations of the different types of knowledge</li> </ul>  |              |
| <b>AO4</b> | <ul style="list-style-type: none"> <li>communicate complex ideas clearly and accurately, using specialist vocabulary where appropriate, in a concise, logical and relevant way</li> <li>use a range of the rules of grammar, punctuation and spelling with accuracy and facility.</li> </ul> |              |

## Level 4

|            |  |              |
|------------|--|--------------|
| <b>AO1</b> | <ul style="list-style-type: none"> <li>select, use and integrate a good range of relevant knowledge</li> <li>show an understanding of the concepts involved</li> </ul>   | <b>31-40</b> |
| <b>AO2</b> | <ul style="list-style-type: none"> <li>interpret and analyse issues and problems and evaluate them competently</li> <li>use evidence to develop reasoned arguments and draw conclusions on the evidence</li> </ul>   |              |
| <b>AO3</b> | <ul style="list-style-type: none"> <li>demonstrate good awareness of the differences between different types of knowledge</li> <li>have a good appreciation of the strengths and limitations of the different types of knowledge</li> </ul>                        |              |
| <b>AO4</b> | <ul style="list-style-type: none"> <li>communicate ideas clearly and accurately, using specialist vocabulary where appropriate, in a concise, logical and relevant way</li> <li>use a range of the rules of grammar, punctuation and spelling facility.</li> </ul> |              |

## Level 3

|            |  |              |
|------------|--|--------------|
| <b>A01</b> | <ul style="list-style-type: none"> <li>select, use and integrate a range of relevant knowledge</li> <li>show an adequate understanding of the concepts involved</li> </ul>   | <b>21-30</b> |
| <b>A02</b> | <ul style="list-style-type: none"> <li>undertake some interpretation and analysis of issues and problems and make a superficial evaluation</li> <li>use evidence to develop arguments and draw conclusions</li> </ul>    |              |
| <b>A03</b> | <ul style="list-style-type: none"> <li>demonstrate awareness of the differences between types of knowledge</li> <li>have an appreciation of the strengths and limitations of the different types of knowledge</li> </ul> |              |
| <b>A04</b> | <ul style="list-style-type: none"> <li>communicate clearly, using some specialist vocabulary with facility</li> <li>use some of the rules of grammar, punctuation and spelling facility.</li> </ul>                      |              |

## Level 2

|            |  |              |
|------------|--|--------------|
| <b>A01</b> | <ul style="list-style-type: none"> <li>select, use and integrate a limited range of relevant knowledge</li> <li>show a modest understanding of the concepts involved</li> </ul>  | <b>11-20</b> |
| <b>A02</b> | <ul style="list-style-type: none"> <li>demonstrate limited interpretation and analysis of issues and problems with limited evaluation</li> <li>use evidence to develop limited arguments and draw limited conclusions</li> </ul>           |              |
| <b>A03</b> | <ul style="list-style-type: none"> <li>demonstrate limited awareness of the differences between types of knowledge</li> <li>have a restricted appreciation of the strengths and limitations of the different types of knowledge</li> </ul> |              |
| <b>A04</b> | <ul style="list-style-type: none"> <li>communicate ideas with limited clarity, using some specialist vocabulary</li> <li>use some rules of grammar, punctuation and spelling.</li> </ul>   |              |

## Level 1

|            |  |             |
|------------|--|-------------|
| <b>A01</b> | <ul style="list-style-type: none"> <li>select, use and integrate some knowledge which may not be accurate</li> <li>show a restricted understanding of the concepts involved</li> </ul>   | <b>0-10</b> |
| <b>A02</b> | <ul style="list-style-type: none"> <li>demonstrate poor interpretation and analysis of issues, problems and evaluation</li> <li>recognise arguments and conclusion</li> </ul>  |             |
| <b>A03</b> | <ul style="list-style-type: none"> <li>demonstrate very limited awareness of the differences between types of knowledge</li> <li>have a very restricted appreciation of the strengths and limitations of the different types of knowledge</li> </ul> |             |
| <b>A04</b> | <ul style="list-style-type: none"> <li>communicate with little clarity using occasional specialist terms</li> <li>use poor grammar and punctuation, and inaccurate spelling.</li> </ul>  |             |

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