

General Certificate of Secondary Education June 2013

General Studies

47601

(Specification 4760)

Unit 1: Case Study

Final

Mark Scheme

Mark schemes are prepared by the Principal Examiner and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation events which all examiners participate in and is the scheme which was used by them in this examination. The standardisation process ensures that the mark scheme covers the candidates' responses to questions and that every examiner understands and applies it in the same correct way. As preparation for standardisation each examiner analyses a number of candidates' scripts: alternative answers not already covered by the mark scheme are discussed and legislated for. If, after the standardisation process, examiners encounter unusual answers which have not been raised they are required to refer these to the Principal Examiner.

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GCSE General Studies

Assessment Objectives (AOs)

The following assessment objectives will be assessed in the context of the content and skills set out in Section 3 (Subject Content) of the specification.

- **AO1** demonstrate relevant knowledge and understanding applied to a range of contemporary issues. (*Knowledge*)
- AO2 comprehend and make use of stimulus material presented in a variety of forms including text, number, statistics, diagrams and pictures. (*Comprehension*)
- AO3 marshal evidence by selecting, interpreting, and integrating information, data and concepts, and by communicating clearly in an accurate, logical and relevant way. (Application and Communication)
- AO4 interrelate information and ideas in a coherent and structured manner, evaluate evidence, form reasoned judgements, and recognise bias and prejudice. (Synthesis and Evaluation)

Distribution of Assessment Objective marks across Unit 1

| Question | AO1 | AO2 | AO3 | AO4 | Total |
|----------|-----|-----|-----|-----|-------|
| 1 | _ | 2 | 2 | - | 4 |
| 2 | 1 | 2 | 2 | 1 | 6 |
| 3(a) | 1 | 1 | 1 | 1 | 4 |
| 3(b) | 2 | 1 | 1 | 2 | 6 |
| 4 | 6 | 4 | 4 | 6 | 20 |
| Total | 10 | 10 | 10 | 10 | 40 |

Unit 1 Case Study

1 Using <u>Source 1</u>, explain <u>three</u> ways mankind has benefited from advances in the prevention of smallpox.

(4 marks)

Examples of indicative content – any other valid points should be credited.

Level 2 (3 – 4 marks)

Some development of points such as:

(Should begin to consider the advantages of eradicating smallpox)

- vaccination in general has helped mankind (Jenner)
- millions of lives saved
- many people spared blindness from smallpox
- many people spared the scarring from smallpox
- an "ancient scourge" has been removed
- 60% of world population was threatened in the 1960s now not so.

Level 1 (1 – 2 marks)

Simple undeveloped points (identification only) <u>such as</u>: (Likely to focus on the problems caused by smallpox)

- one of the most devastating diseases known to humanity
- no effective treatment ever developed
- · as many as 30% of victims died
- many survivors were blinded by smallpox
- 50 million people affected in 1950s
- · millions of lives saved.
- (0) No relevance to question.
- (-) No response ('not attempted').

2 <u>Source 3</u> reveals problems that can occur when new drugs and treatments are being tested.

Using information from <u>Source 2</u> and <u>Source 3</u> explain some of the benefits <u>and</u> drawbacks of developing new drugs and treatments.

(6 marks)

Examples of indicative content – any other valid points should be credited.

Level 3 (5-6 marks)

Cross-referencing, developed points and conclusions such as:

- complex surgery such as heart transplants can only take place with the help of drugs (Source 2)
- the number of clinical trials in developing countries has surged but they might be necessary in order to license new drugs (Source 3)
- ethical guidelines safeguarding participants in clinical trials need to be universally followed (Source 3).

Level 2 (3 – 4 marks)

Some development of points such as:

- some treatments can themselves be dangerous, eg X-rays (Source 2)
- there might be ethical guidelines but these are not always followed (Source 3).

Level 1 (1-2 marks)

- penicillin could treat a wide range of infections (Source 2)
- difficult to find people to test new drugs on (Source 3).
- (0) No relevance to question.
- (-) No response ('not attempted').
- **NB** A candidate who does not use Sources 2 and 3 should usually be awarded the lower of the 2 marks in the appropriate mark band.

- 3 Use the information contained in <u>Source 5</u> (Chart A, Chart B, and Chart C) to answer the following questions. You may also refer to any of the other sources.
- 3(a) Explain how <u>and</u> why the death rate from disease has changed in recent years. (4 marks)

Examples of indicative content – any other valid points should be credited.

Level 2 (3 – 4 marks)

Some development of points such as:

- Mental and behavioural disorders caused more deaths because people now live longer
- women more affected by diseases and ageing because they live longer than men
- some diseases show little or no change (with examples) in terms of the death rate
- · total deaths fell whilst the population grew
- death rates per 100,000 for top 3 fell diseases whilst mental and behavioural disorders rose candidate establishes the contrast.

Level 1 (1-2 marks)

- biggest change is in mental and behavioural disorders
- more women than men affected by diseases and ageing such as dementia
- · some outcomes unchanged, eg respiratory diseases
- total death rate fell
- death rates per 100,000 for top 3 causes all fell from 2001 to 2010.
- (0) No relevance to question.
- (-) No response ('not attempted').

- 3 Use the information contained in <u>Source 5</u> (Chart A, Chart B, and Chart C) to answer the following questions. You may also refer to any of the other sources.
- 3(b) To what extent can the claim that 'this is one of the safest times to be alive' be justified? (Source 5: Chart C)

(6 marks)

Examples of indicative content – any other valid points should be credited.

Level 3 (5-6 marks)

Cross-referencing, developed points and conclusions such as:

- death rate per 1,000 living has fallen to approx 20% of the 19th century figures so this is the safest time to be alive
- the eradication of diseases such as smallpox; improved care during childbirth, use of antibiotics etc are all factors in the death rate falling and life becoming "safer"
- deaths from some causes (heart disease in particular) have fallen but smoking still "takes its toll" there are still conditions that are preventable but kill people
- total deaths fell, suggesting more people are living longer the ones who didn't die in 2010 will live to be older and thus more likely to die from mental and behavioural disorders
- it is the more preventable and treatable diseases which have shown the greatest fall in deaths rates whereas dementia seems harder (if not impossible) to prevent.

Level 2 (3 – 4 marks)

Some development of points such as:

- death rate has fallen over time with figures to support answer
- scientific developments shown in Source 2 explain why it is now safer to be alive with examples, eg vaccination, antibiotics etc
- it is safer to be alive but still not as safe as it could be smoking for example
- death rates for men and women are decreasing and also becoming less different in later years so safer for both
- as some diseases are tackled by modern medicine, others will take their place.

Level 1 (1-2 marks)

- death rate has fallen over time (no figures given)
- science has prevented some diseases, eg smallpox
- because the death rate is lower it is safer to be alive today
- comment on death rates for men vs women changing in line with Chart B
- not all diseases can be prevented.
- (0) No relevance to question.
- (-) No response ('not attempted').

Levels Mark Scheme for Question 4

| Level | Marks | |
|---------|---------|---|
| Level 5 | 17 – 20 | Selects from source material with considerable precision Discriminates well between important and less important material Draws conclusions in a clear and logical way Offers personal judgements supported by detailed evidence drawn from a wide range of areas Demonstrates additional research where appropriate Analyses and evaluates clearly and concisely Extends and develops points – always with clear aims Communication displays a high degree of accuracy. |
| Level 4 | 13 –16 | Clear analysis of the facts and well-informed personal opinion. Makes full use of relevant supporting material Selects with precision from pre-released material and introduces and links material from elsewhere Information is clearly presented and simple for the general reader to understand Contains clear conclusions drawn from a range of relevant material and based on clear analysis Spelling, punctuation and grammar is largely accurate. |
| Level 3 | 9 –12 | Some cross-referencing of material – linking ideas in different documents. Answers in this band should draw clear comparisons and not simply give isolated facts. Clear evidence of reorganisation of material with personal opinion beginning to be expressed Information is presented clearly and simply with some illustration of points The answer should contain clear conclusions, though these may be in the simplest form Spelling, punctuation and grammar is reasonably accurate. |
| Level 2 | 5 -8 | Selects some relevant material Attempts to use stimulus material and/or own ideas Examples are frequently undeveloped Some evidence of reorganisation of the material provided and/or of additional material Draws relevant simple conclusions Communication is likely to be unclear and contain a number of errors. |
| Level 1 | 1 – 4 | Simple interpretation/selection of source material. Basic level of organisation of material – probably in the order in which it was presented No real development of points. Communication may well be weak with numerous errors in spelling, punctuation and grammar. |
| | 0 (-) | No relevance to question.No response ('not attempted'). |

In answer to this question you should refer to <u>all</u> the <u>Sources (1 to 5)</u> as well as <u>using your own knowledge</u>.

Medical progress means that mankind can now prevent and manage illness in many kinds of ways.

What choices have to be made as a result of the advances in medical science and how might they be addressed?

You might consider:

- medical professionals
- patients
- society as a whole.

Explain your reasons.

(20 marks)

Refer to Levels Mark Scheme on page 8 when awarding marks

Examples of indicative content – any other valid points should be credited.

Level 5 (17 – 20 marks)

Clear and concise analysis and additional research such as:

- there is no simple answer to this problem but I think that ...
- we should have a balance between treatments and clear moral issues ...
- in addition to the Sources I have found evidence that ...
- the balance between treating the few and the many is difficult to achieve
- examples drawn from recent events: probably stem cell research cases in the media
- may make references to the figures and changes in death rates (Source 5).

NB To reach Level 5 there is likely to be a high level of discussion about

Answers in this range should be well constructed, clearly organised and well reasoned. Points should be supported and high level thinking displayed.

It is expected that answers will draw on the sources but that this may be done in a way that synthesises information without necessarily naming the sources directly.

Level 4 (13 – 16 marks)

Clear analysis based on sources with well-developed conclusions such as:

- the right to the best treatment should belong to everyone but this can be hard to achieve because of cost (Source 2, Source 3)
- the best interests of the majority vs the individual (Source 1, Source 3, Source 4)
- personal beliefs are important but have to be balanced against the benefits for society as a whole (Source 3, Source 4)
- the clash between big companies wanting to make profits and many people needing new drugs (Source 3, Source 4)
- many countries cannot afford the standard of medical care that is available in developed nations (Source 2, Source 3)
- may refer to the changes in death rates (Source 5).

Level 3 (9 – 12 marks)

Cross-referencing, developed points and conclusions such as:

- the right to the best treatment should belong to everyone (Source 2, Source 3)
- medicine should be about what is best for everyone (Source 1, Source 3, Source 4)
- personal beliefs are important some people do not believe in transfusions, others do not want doctors to prolong life beyond a certain point (Source 4)
- drug companies say they need to make profits in order to develop new drugs (Source 3)
- poor countries cannot afford to buy expensive drugs so they should be given them for free (Source 3)
- people dying from different causes (Source 5).

Level 2 (5 – 8 marks)

Some development of points such as:

- people should just get the best treatment there is (Source 2, Source 4)
- all medical decisions should be based on science (Source 1, Source 4)
- religions have their own rules about medicine (Source 4)
- ethical issues (Source 4)
- drug companies need to make money (Source 3)
- rich countries should help poor countries
- people tend to live longer (Source 5).

Level 1 (1-4 marks)

- listing cases from sources, eg. smallpox (Source 1)
- doctors should choose what treatment a patient receives (Source 2)
- religious freedom is more important than science (Source 4)
- ethical 'it's not right!' (Source 4)
- someone has to pay for drugs (Source 3)
- why should one country pay for another? (Source 3)
- people live longer (Source 5).
- (0) No relevance to question.
- (-) No response ('not attempted').