

# General Certificate of Education

## General Studies 6766

### *Specification B*

#### *GSB6 Space – Time*

# Mark Scheme

## *2006 examination – January series*

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 meeting attended by all examiners and is the scheme which was used by them in this examination. The standardisation meeting 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 the standardisation meeting each examiner analyses a number of candidates' scripts: alternative answers not already covered by the mark scheme are discussed at the meeting and legislated for. If, after this meeting, examiners encounter unusual answers which have not been discussed at the meeting they are required to refer these to the Principal Examiner.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of candidates' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

## Unit 6

## (GSB6 Space–Time)

**Answers given in the mark schemes are not necessarily definitive. Other valid points must be credited, even if they do not appear in the mark scheme.**

### SECTION A

Marks for answers in this Section should be awarded in the following bands:

Band	Marks	
1	33 – 40	A very good response showing understanding of the source, and of the issues, and of the possibilities and limitations of different approaches to the subject. Information of a specific kind from within and beyond the source is analysed critically. The argument is well structured and balanced; facts, opinions and values (implicit and explicit) are clearly distinguished and weighed. The conclusion is valid and thoughtful. Expression is clear and logical with no significant errors of style or grammar.
2	25 – 32	A good response showing understanding of the source and of the issues. Some attempt is made to combine information and examples from the source and from elsewhere. The argument is quite well structured and balanced. Facts, opinions and values are recognised as such. The conclusion is mostly valid. Expression is reasonably clear and accurate, with few errors of style and grammar.
3	17 – 24	A competent, average response showing some understanding of the source, but one that is largely dependent on it. Evidence is moderately well marshalled in an argument that may lack structure and balance, and that may generalise. An adequate attempt is made to distinguish between fact and opinion and to reach a conclusion. Expression is reasonably clear and accurate, although there may be some carelessness in style and grammar.
4	9 – 16	A limited response showing little understanding of the source. No other information is drawn on. Evidence is loosely marshalled in an argument that lacks structure and balance. Only a limited attempt is made to separate fact and opinion, and to come to a conclusion. Expression is unclear and there is inaccuracy in style or grammar.
5	1 – 8	A response that barely addresses the issues; that shows little or no understanding of the source. If there is other information it is of doubtful relevance. There is more assertion than argument, and no attempt is made at evaluation, summary, or conclusion. Clarity and accuracy are seriously impaired by significant errors in style, expression and grammar.
6	0	No response, or no relevant points.

**Examiners are reminded that all questions in the Unit are synoptic in nature and offer candidates the opportunity to demonstrate knowledge, understanding and skills acquired throughout the A-level course.**

**SECTION A**

**1 According to Source A, science fiction deals with ‘possible’ futures, with what is scientifically plausible’.**

**Science fiction aims to entertain – but does it have a deeper purpose? Is it worthwhile for**

- **scientists**
- **historians**
- **politicians**
- **environmentalists**

**for example, to try to imagine possible futures?**

**(40 marks)**

Candidates will comment on whether there is some ‘deeper purpose’ in Sci-Fi than to entertain. They might refer to its aim to warn us of catastrophe of a

- military
- ecological
- medical
- social

kind, and perhaps cite an example or two.

The main body of the response should focus on the second question. Here, more specifically, candidates might emphasise the need to forecast the results of present trends in

- genetics
- nanotechnology
- depletion of natural resources
- climate change
- international relations
- weapons technology
- space travel

**Band 1** The task is well understood.

The response focuses on specific extrapolations from the actual to the possible, and evaluates the utility of such forecasting, convincingly.

There is exploration of more than one field of enquiry.

There is a line of argument and a conclusion.

- Band 2 The task is understood.  
There is some specificity within at least one field of enquiry, where warning is given of a possible future based on an actual situation.  
There is some realistic assessment of the value of such forecasting.  
Ordinarily, there will be a conclusion that goes beyond the particular.
- Band 3 In the upper half of the band there is still understanding, and some awareness of the place of rational forecasting in one or another subject fields.  
There is generalisation, and lower in the band, a growing reliance on the four named groups of thinkers to make points of a mostly self-evident kind.
- Band 4 The task is not fully understood.  
The source is raided for ideas that are not well developed or co-ordinated.  
There is no specificity, and rather little sense of what it might mean to imagine possible futures in other than a science-fiction context.  
Expression is weak, and the response may be brief.

**SECTION B**

Marks for questions 2 and 3 should be awarded in the following bands:

<b>Band</b>	<b>Marks</b>	
1	33 – 40	A very good response showing understanding of the sources, and of the issues, and of the possibilities and limitations of different approaches to the subject. Information of a specific kind from within and beyond the sources is analysed critically and synoptically. The argument is well structured and balanced; facts, opinions and values (implicit and explicit) are clearly distinguished and weighed. The conclusion is valid and thoughtful. Expression is clear and logical with no significant errors of style or grammar.
2	25 – 32	A good response showing understanding of the sources and of the issues. Some attempt is made to combine information and examples from the sources and from elsewhere, synoptically. The argument is quite well structured and balanced. Facts, opinions and values are recognised as such. The conclusion is mostly valid. Expression is reasonably clear and accurate, with few errors of style or grammar.
3	17 – 24	A competent, average response showing some understanding of the sources, but one that is largely dependent on them. Evidence is moderately well marshalled in an argument that may lack structure and balance, and that may generalise. An adequate attempt is made to distinguish between fact and opinion and to reach a conclusion. Expression is reasonably clear and accurate, with some carelessness in style or grammar.
4	9 – 16	A limited response showing little understanding of the sources. No other information is drawn on. Evidence is loosely marshalled in an argument that lacks structure and balance. Only a limited attempt is made to separate fact and opinion and come to a conclusion. Expression is unclear and there is some inaccuracy in style or grammar.
5	1 – 8	A response that barely addresses the issues; that shows little or no understanding of the sources. If there is other information it is of doubtful relevance. There is more assertion than argument, and no attempt is made at evaluation, summary, or conclusion. Clarity and accuracy are seriously impaired by significant errors in style, expression and grammar.
6	0	No response, or no relevant points.

**Answer either Question 2 or Question 3.**

**2 To outsiders, antique dealers (Source B) and electron clouds (Source C) can be equally confusing.**

**Discuss whether we have more to learn about the ways in which people, or the ways in which things, behave.**

**(40 marks)**

**People:**

- (a) we shall never fully understand the workings of the human mind
- (b) people's behaviour will vary as the circumstances they find themselves in change; we can count upon these circumstances changing continuously
- (c) we are people ourselves, so learning about other people involves a considerable number of variables
- (d) we live for a short time, so can only accumulate understanding of each other as our lives overlap in time
- (e) there is a more or less infinite number of situations (antique-dealing is just one) in which people behave and interact.

**Things:**

- (n) we shall never acquire measuring instruments refined enough to determine the behaviour of fundamental particles
- (o) such behaviour is, in any case, radically unknowable, as the passage makes clear
- (p) the behaviour of things is dependent on certain conditions being kept constant; atmospheric and other conditions on earth are in flux
- (q) even if we could learn all that there is to know about the range of things and their behaviours on earth, that still leaves a lot of universe to understand
- (r) 'things' might be said to include organic tissue: we are likely to go on discovering all sorts of things we can do in the field of medicine.

**Band 1** The task is well understood.  
The response focuses on specific subject areas beyond those in the sources, on specific discoveries or research programmes.  
There is a realistic discussion of the behaviour of people or things: of what we know and of what we may never know.

**Band 2** The task is understood.  
There is some specificity within at least one field of enquiry, beyond those in the sources.  
There is some realistic assessment of what we know and what we might yet learn in at least this one subject area.  
Ordinarily there will be a conclusion that goes beyond the particular.

- Band 3 In the upper half of the band there is still understanding and still some awareness of the extent of what there is to learn. There is some reasonable interpretation of the sources.  
There is generalisation, and lower in the band, a growing reliance on the sources, and a less convincing assessment of the people/things distinction.  
In this lower half, expression may be deteriorating.
- Band 4 The task is not fully understood.  
The sources are raided for ideas that are not well developed or co-ordinated.  
There is no specificity and rather little sense of what it might mean to compare the behaviour of people with the workings of things.  
Expression is weak, and the response may be brief.

**(40 marks)**

**3 Traditional religion is giving way to new expressions of belief (Source D); and it is recommended that traditional honours be renamed or abolished (Source E).**

**Why do you think we appear to be turning our back on traditional ways of doing things?**

**(40 marks)**

**Points might include:**

- (a) Traditional (Christian) rites and doctrines have not adapted themselves well to new needs. They appear to be stuck in their ways and are unsatisfying.
- (b) The honours system smacks of pre-democratic privilege and 19<sup>th</sup> century imperialism. We must find more appropriate ways to honour the great and good.
- (c) We are less tolerant of institutions simply because they've always been there. They must earn our respect by adapting – or they must move over (the C of E, high-street banks, trade unions, Oxbridge, the Royals etc.)
- (d) There has been a diminution in respect for authority – this is partly because the media expose that authority to our daily gaze, and shine a light on its feet of clay.
- (e) Globalisation is another factor: the competition has got hotter, so companies, institutions, habits, procedures must change if they are to work.
- (f) We are being educated to higher levels; the Internet is at our fingertips; the democratic, rational-scientific consensus is overcoming dogma, ideology, and the forces of conservatism.

**Band 1** The task is well understood.  
The response focuses on specific examples of the decline of traditional ways of doing things beyond those in the sources.  
There is a realistic appraisal of the nature and the extent of the change and even some evaluation of whether it is for the good.  
There is a line of argument and a conclusion.

**Band 2** The task is understood.  
There is some specificity within at least one cultural context beyond those (religion, honours) in the sources.  
There is some realistic assessment of how far and how fast sidelining of tradition is taking place.  
Ordinarily, there will be a conclusion that goes beyond the particular.

**Band 3** In the upper half of the band there is still understanding and still some awareness of what is meant by 'tradition' in this context.  
There is some reasonable interpretation of the sources.  
There is generalisation, and lower in the band, a growing reliance on the sources and a less convincing grappling with the question.  
In this lower half, expression may be deteriorating.

**Band 4** The task is not fully understood.  
The sources are raided for ideas that are not well developed or co-ordinated.  
There is no specificity, and rather little sense of what it might mean to abandon traditions.  
Expression is weak, and the response may be brief.

**(40 marks)**



**Distribution of Assessment Objective marks across Unit 6**

<b>Question Numbers</b>		<b>1</b>	<b>2/3</b>	<b>AO marks per unit</b>
<b>Assessment Objectives</b>	<b>AO1</b>	<b>11</b>	<b>11</b>	<b>22</b>
	<b>AO2</b>	<b>5</b>	<b>5</b>	<b>10</b>
	<b>AO3</b>	<b>14</b>	<b>14</b>	<b>28</b>
	<b>AO4</b>	<b>10</b>	<b>10</b>	<b>20</b>
<b>Total marks per Question</b>		<b>40</b>	<b>40</b>	<b>80</b>