Centre No.					Pape	er Refer	ence			Surname	Initial(s)
Candidate No.			6	4	5	2	/	0	1	Signature	

6452/01

Edexcel GCE

General Studies

Advanced Subsidiary

Unit 2: Scientific Horizons

Monday 21 May 2007 – Afternoon

Time: 1 hour 15 minutes

Materials	required	for	examination
Nil			

Items included with question papers

Instructions to Candidates

In the boxes above, write your centre number, candidate number, your surname, initial(s), and

Some questions must be answered with a cross in a box (X). If you change your mind, put a line through the box (\boxtimes) and then mark your new answer with a cross (\boxtimes) .

There are three sections in the paper: Section A, Section B and Section C.

Answer **ALL** the questions in Sections A and B and **ONE** question in Section C. Write your answers in the spaces provided in this question paper.

Include diagrams in your answers where these are helpful.

Do not return the insert with the question paper.

Information for Candidates

The marks for individual questions and the parts of questions are shown in round brackets: e.g. (2). There are 10 questions in this question paper. The total mark for this paper is 50.

There are 16 pages in this question paper. Any blank pages are indicated.

You should have, in addition to this question paper, an insert.

Advice to Candidates

You will be assessed on your ability to organise and present information, ideas, descriptions and arguments clearly and logically, including your use of grammar, punctuation and spelling.

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Examiner's use only

Team Leader's use only

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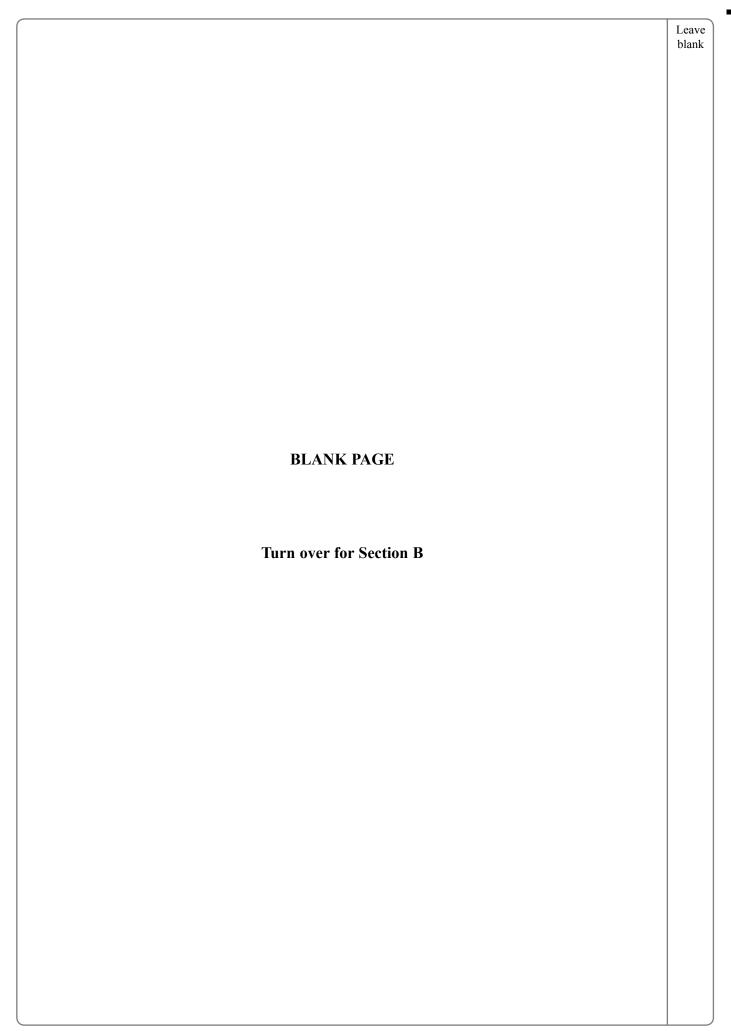
SECTION A	Leave blank
Answer ALL the questions in Section A. Write your answers in the spaces provided.	
You are advised to spend no more than 20 minutes on this section.	
For Questions 4(a) and 5, choose an answer A, B, C or D and put a cross in the box (⋈). If you change your mind, put a line through the box (⋈) and then mark your new answer with a cross (⋈).	
1. Was it the discovery of antibiotics or the invention of the light bulb that led to a scientific revolution?	
Explain why.	
	Q1
(Total 2 marks)	

Some medical studies show that drinking red wine reduces the risk of heart attacks.	
Briefly list information you would need to decide whether or not drinking red wine is go for your general health.	od
	••••
(Total 3 mark	(s)

Advantages	
1	
9	
<u> </u>	
Disadvantages	
1	
<u>-</u>	
	(Total 4 marks)

A new	′spape	er headline stated "Scientists prove bumblebees can't fly!".	Leave blank
		an incorrect statement because:	
\boxtimes	A	scientists can prove anything	-
×	В	scientists cannot explain how any insect flies	-
\boxtimes	C	bumblebees do not have feathers	-
X	D	it is easy to observe that bumblebees can fly	(1)
(b) E	xplair	why a newspaper headline on a science item can be misleading.	
		(Q4
		(Total 3 mark	
At sea	level	l, pure water boils at 100 °C.	
This is	s an e	xample of a scientific:	
\boxtimes	A	hypothesis	-
\boxtimes	В	observation	-
×	C	paradigm	-
×	D	theory	Q5 -
		(Total 1 mar)	k)

	Lea bla
It is claimed that one in three people will experience an electrical emergency in their	
home. On average it costs £600 to repair the damage.	
Use this information to explain whether or not it is worth paying an annual insurance premium of £30 against electrical emergencies.	
	Q6
(Total 4 marks)	Q6
(Total 4 marks) TOTAL FOR SECTION A: 17 MARKS	



Leave blank

SECTION B

Answer ALL the parts of Question 7. Write your answers in the spaces provided.

Read the Source on the separate insert and answer the following questions.

For Questions 7(a) and (b), choose an answer A, B, C or D and put a cross in the box (\boxtimes). If you change your mind, put a line through the box (\boxtimes) and then mark your new answer with a cross (\boxtimes).

			(Z)
7.	(a)	"Scienti (lines 2	sts have found that good dancing is also a sign of genetic perfection." -3)
		Which o	one of the following explanations best justifies this statement?
		$\boxtimes A$	It is a fact that Charles Darwin linked dancing and genetic perfection.
		\boxtimes B	It is a fact that people admire the dancing ability of others.
			Good dancers have a greater degree of body symmetry.
		■ D	Scientists have made a very detailed set of bodily measurements on body symmetry.
			(1)
	(b)		cientists found that symmetrical males were judged by females to be antly better dancers." (lines 24–25)
		This is	an argument based on:
		$\boxtimes A$	induction
		\boxtimes B	analogy
			deduction
		⊠ D	authority (1)

Leave blank

_		and then mark your new answer with a cross (⊠).
(c) Wl	nich	two of the following statements from the source are examples of opinion?
X	A	" the universal human need to dance is part of an evolutionary phenomenon known as sexual selection" (paragraph 1)
X	В	" dancing is indeed linked to physical well-being" (paragraph 2)
×	C	" dance may have evolved to be so important in human culture" (paragraph 3)
×	D	"The videos were carefully edited to eliminate any obvious signs of symmetry." (paragraph 4)
\boxtimes	E	" the most detailed set of bodily measurements on symmetry available for any group of human beings" (paragraph 5) (2)
jus	tifie	three pieces of evidence from the source, show how this conclusion is d. in each case whether the evidence is fact or opinion and why.
	•••••	



Leave blank	
(6)	
en Communication	Quality
(3) Q7	- •
(Total 13 marks)	
TOTAL FOR SECTION B: 13 MARKS	



Leave blank

SECTION C

There are three questions in this section. You should answer ONE of them. Write your answer in the space provided.

Put a cross in the box indicating the question you have chosen (⋈).

	In answering the question you should consider arguments for and against the statement.
Cho	osen question number: Question 8 Question 9 Question 10 Question 10
3.	It is possible to vaccinate people against several dangerous and easily transmitted diseases. The risk involved with these vaccinations is very small.
	Examine the arguments for and against compulsory vaccination for everyone. (17)
9.	Science has been described as simply 'organised knowledge'. If this is true, scientists have to be good organisers of knowledge.
	Assess arguments for and against these descriptions of science and scientists. (17)
10.	Assess arguments for and against these descriptions of science and scientists.
10.	Assess arguments for and against these descriptions of science and scientists. (17) Carbon dioxide is the principal greenhouse gas causing global warming and climate change.
	Assess arguments for and against these descriptions of science and scientists. (17) Carbon dioxide is the principal greenhouse gas causing global warming and climate change. Carbon dioxide is not produced in nuclear reactors that are used to generate electricity. Consider arguments for and against the suggestion that all countries should, in the light of this statement, use nuclear power to generate electricity.

viite your answ	rer to Section C here:



	Leave blank
	1

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	eave lank
Sect	tion
/T-4-130 1 \	γ
(Total 20 marks) TOTAL FOR SECTION C: 20 MARKS	J
TOTAL FOR PAPER: 50 MARKS	
END	