

Write your name here

Surname

Other names

Centre Number

Candidate Number

**Edexcel GCE**

# **General Studies**

## **Advanced Subsidiary Unit 1: Challenges for Society**

New Template Exemplar

**Time: 1 hour 30 minutes**

Paper Reference

**6GS01/01**

**You do not need any other materials.**

Total Marks

### **Instructions**

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** questions.
- Answer the questions in the spaces provided
  - *there may be more space than you need.*

### **Information**

- The total mark for this paper is 90.
- The marks for **each** question are shown in brackets
  - *use this as a guide as to how much time to spend on each question.*
- Quality of written communication will be taken into account in the marking of your answers.
  - *you should take particular care with your spelling, punctuation and grammar, as well as the clarity of expression.*

### **Advice**

- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end.

*Turn over ►*

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## SECTION A

**Answer ALL questions.**  
**You should aim to spend no more than 20 minutes on this section.**

**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 One concern with the use of genetically modified crops is that
- A they are unable to reproduce
  - B they are less able to grow in harsh conditions
  - C there is no genetic variation
  - D their genes may spread to other plants

**(Total for Question 1 = 1 mark)**

- 2 Natural selection has **not** caused
- A changes in the gene pool
  - B evolution
  - C increase in human life expectancy over the last 100 years
  - D the development of new species

**(Total for Question 2 = 1 mark)**

- 3 In 1514, Copernicus proposed that the Earth travelled round the Sun. This was contrary to teaching at the time, which said that the Sun travelled round the Earth.
- (a) How might this proposition have affected the lives of ordinary people at the time? (1)
- A cause
  - B coincidence
  - C deduction
  - D induction
- (b) Why might those in authority at the time have rejected this proposition? (1)
- A It challenged their authority
  - B It was against their religious teaching
  - C They didn't understand it
  - D They thought Copernicus was uneducated

**(Total for Question 3 = 2 marks)**



- 4 Which of the following is helping to reduce our carbon footprint in our daily life?
- A using energy from coal power stations rather than nuclear powered stations
  - B using a solar cell to recharge a battery rather than a mains charger
  - C using a traditional oven rather than a microwave to cook food
  - D using a kettle to boil a litre of water on one occasion rather than boiling half a litre on two occasions

(Total for Question 4 = 1 mark)

- 5 Road tax on some larger cars has been increased because
- A larger cars can carry more people
  - B larger cars cause more damage to road surfaces
  - C larger engines are less efficient
  - D larger engines produce more pollution

(Total for Question 5 = 1 mark)

- 6 In a secular system of government
- A religion is controlled by the state
  - B religion plays no constitutional part in politics
  - C the head of state must not be a religious leader
  - D religious worship is always banned

(Total for Question 6 = 1 mark)

- 7 Which of these is a criminal offence?
- A libel
  - B slander
  - C fraud
  - D trespass

(Total for Question 7 = 1 mark)

8. If a criminal is punished by probation it means
- A a trial period to see if the criminal commits any more crimes
  - B the criminal is imprisoned at weekends only
  - C the criminal has to pay compensation
  - D the criminal is placed under close supervision

(Total for Question 8 = 1 mark)



**Read the paragraph Ozone Pollution and then answer questions 9–13.**

#### Ozone Pollution

Too much ozone at ground level, formed by the interaction of vehicle exhaust fumes with sunlight, can cause headaches, choking and coughing, as well as exacerbating asthma. The table shows the number of days per year during which government health standards were exceeded in different areas. The maximum acceptable level is 50 parts per billion measured as a mean over an eight hour period.

Area	Leicester	Rochester	East Anglia	North Scotland	Exeter
No of Days	19	44	33	19	20

**9** What is the mean number of days on which the acceptable level was exceeded?

- A** 50
- B** 25
- C** 27
- D** 33

**(Total for Question 9 = 1 mark)**

**10** Measuring the pollution 'as a mean over an eight hour period' makes the data more

- A** variable
- B** factual
- C** reliable
- D** measurable

**(Total for Question 10 = 1 mark)**

**11** Which of the following factors would **not** directly affect the data for a particular area?

- A** Traffic levels
- B** Weather conditions
- C** Taking measurements next to a road
- D** Population

**(Total for Question 11 = 1 mark)**



**12** "50 parts per billion" means

- A** 50 oxygen molecules for every billion molecules in the air
- B** 50 oxygen molecules for every billion ozone molecules
- C** 50 ozone molecules for every billion molecules in the air
- D** 50 air molecules for every billion ozone molecules

**(Total for Question 12 = 1 mark)**

**13** To the nearest 1%, on how many days per year were levels of ozone in East Anglia at an acceptable level?

- A** 10 %
- B** 67 %
- C** 90 %
- D** 91 %

**(Total for Question 13 = 1 mark)**



**Read the paragraph Lord Winston 'Commercial activity changes the ownership of science' and then answer questions 14-17.**

Lord Winston 'Commercial activity changes the ownership of science'

The UK Government is committed to scientific research because it is convinced that it will make Britain more economically competitive. Economic reasons seem almost entirely the only stated reason for increasing funding — science is seen as a financial investment. Yet we don't fund the study of the literature and theatre of Shakespeare, O'Casey or James Joyce at universities because these subjects will increase British or Irish invisible earnings, and courses in archaeology, Gaelic and Tudor history are not supported because they are good money-spinners.

Funding of science to make our country "competitive" is to be welcomed — but it has its downside. Science is no longer seen as an essential part of our culture or as an important expression of essential human inquisitiveness. This has grave dangers for science, though scientists often forget this. It means some expensive scientific subjects — for example, astronomy — may be increasingly underfunded because they are perceived as useless or not producing sufficient economic returns.

But my most important concern is the risk of public trust. There is a very serious danger that commercial activity could change the public perception of science. Once the pursuit of science becomes heavily geared to profit, scientists may be perceived as having vested interests and not working merely for the public good.

And with increasing commercialisation may come increasing secrecy amongst scientists, in the last three years, I have paid to go to a series of cell biology meetings in the USA where the lecturer has given some fascinating news about how a particular molecule he or she is studying seems to change cell growth or differentiation. But these lecturers have frequently been unwilling or unable to divulge the key information about the molecule — what it is, its structure, or how it is produced. This was the very information for which the registrants attended the meeting. Commercial interest has meant that more and more scientific details may remain undisclosed.

(Source: adapted from I. Winston. The Independent, 6 September 2005)

- 14** In lines 21-22 Lord Winston states "But these lecturers have frequently been unwilling or unable to divulge the key information about the molecule – what it is, its structure, or how it is produced".

From the information in the passage, the most likely reason for this is that

- A** scientists do not share their findings
- B** they have not confirmed their results
- C** they cannot reveal commercial secrets
- D** it is too complicated to explain

**(Total for Question 14 = 1 mark)**



**15** The "ownership of science", mentioned in the title of the source was previously held by those who

- A** provided the research laboratories
- B** provided funding for scientific research
- C** tried to make money from science
- D** made scientific discoveries

(Total for Question 15 = 1 mark)

**16** (a) In the last paragraph (lines 24-25) the conclusion is that "Commercial interest has meant that more and more scientific details may remain undisclosed". The argument in the paragraph is an

(1)

- A** argument based on analogy
- B** argument based on authority
- C** argument based on induction
- D** argument based on deduction

(b) It is stated (lines 23-24) that "This was the very information for which the registrants attended the meeting." This is an example of

(1)

- A** a fallacy
- B** an opinion
- C** a fact
- D** a statistic

(Total for Question 16 = 2 marks)

**17** Which **two** of the following are reasoned conclusions to arguments used in the passage?

- A** Scientists only work for financial reward
- B** Astronomy is a waste of public money
- C** Scientists are being forced to work in secret
- D** University courses in literature are good value for money
- F** Scientists should be allowed to speak freely

(Total for Question 17 = 2 marks)

**TOTAL FOR SECTION A = 20 MARKS**



N 3 6 1 5 4 A 0 7 2 0

7

Turn over ➤

## SECTION B

**Answer ALL questions.  
You should aim to spend no more than 30 minutes on this section.**

**Read Source A and answer questions 18–24.**

### **Source A: Life sentences for killers and rapists have halved in length since 1997.**

"People given 'life' sentences for rape, armed robbery or manslaughter are walking free after an average of only six years behind bars. The length of punishment has fallen by more than half since Labour came to power." In 1998, convicts given non-mandatory<sup>1</sup> life terms were locked-up for 14 years.

Victim groups said it made a mockery of the term 'life' sentence. Between 2004 and 2005 alone, the average time spent in custody fell from nine years to six. It was blamed on the Government's failure to provide enough prison places – forcing judges to hand down softer sentences, and the Parole Board to grant dangerous criminals their freedom earlier to create space.

David Green, of the Civitas think-tank, pointed to the sharp increase in the number of non-mandatory lifers walking free each year. Dr Green said: 'It looks like the Parole Board, who are responsible for the release of life prisoners, has been quietly asked to help with the prisons crisis by letting out more people. It is another reminder of the Government's failure to provide enough places for serious offenders.'

Shadow Home Secretary David Davis said: 'The Government should provide sufficient prison places so that those offenders who should be in prison are. These offenders should also serve an honest and appropriate sentence.'

Dee Warner of Mothers against Murder and Aggression said Labour had failed to keep its promise to consider victims' rights. "The Government and all those people who let them out are never ever held accountable. No matter how brutal the killing is you constantly read they get a life sentence but it's a seven year tariff".

The Human Rights Act, reinforced by a European court ruling in 2002, has increased pressure on the Parole Board to free inmates. Convicts are now entitled to a barrister – paid for by legal aid – to represent them at their hearing. Experts have warned the parole board, not wishing to have its decisions overturned, are paying more attention to the rights of the criminal than the public. Last year, the Parole Board handled 1,630 legally-aided cases, at a cost of £2.4m.

A Home Office spokesman said: 'These statistics demonstrate why we need to put public protection at the heart of criminal justice and why it is important that we reform the offender management system to improve the assessment and management of all offenders in the community.' "The sentence served by criminals handed a mandatory<sup>1</sup> life jail term – the punishment given to murderers – remained stable at 14 years before parole. It has been at around the same mark for the past eight years".

(Source: extracted from an article by JAMES SLACK (Daily Mail) Last updated at 07:36am on 6 December 2006)

Glossary: <sup>1</sup> "Mandatory" – is something that contains a command or an obligation. "Non-mandatory" is something which is not required or obligatory.



**18** The use of the word 'killers' in the source title covers more than one category of crime.

Name **two** of these.

1 .....

2 .....

**(Total for Question 18 = 2 marks)**

**19** From the source identify **two** reasons why some people believe that "life" sentences are being devalued.

1 .....

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2 .....

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**(Total for Question 19 = 2 marks)**

**20** Use the information in the source to explain how the Parole Board (paragraph 3) is being put under pressure.

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**(Total for Question 20 = 4 marks)**



- 21** Use your own knowledge to explain why the punishment for killing should **not** be the same in all cases.

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**(Total for Question 21 = 4 marks)**

- 22** Mothers against Murder and Aggression (paragraph 5) is a national registered charity which supports and campaigns on behalf of families and friends of murder victims. Not all mothers belong to it.

In what way does information from the source suggest that Dee Warner, its spokesperson, presents a one-sided view?

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**(Total for Question 22 = 4 marks)**



**23** 'A Home Office spokesman said 'These statistics demonstrate why we need to put public protection at the heart of criminal justice...' To what extent do statistics on their own support any claim such as this?

(4)

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**Quality of Written Communication = 3 marks**  
**(Total for Question 23 = 7 marks)**



11

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**24** "People given 'life' sentences for rape, armed robbery or manslaughter are walking free after an average of only six years behind bars. The length of punishment has fallen by more than half since Labour came to power." (lines 1–3)

"The sentence served by criminals handed a mandatory<sup>1</sup> life jail term – the punishment given to murderers – remained stable at 14 years before parole. It has been at around the same mark for the past eight years". (final paragraph)

These quotes from the source are from different viewpoints. Explain clearly how they are used in the source.

*You are not being asked to give your own opinions but to use thinking and analytical skills to examine the passage.*

(4)





N 3 6 1 5 4 A 0 1 3 2 0

13

*Turn over* 

## **SECTION C**

**Answer ALL the questions. You should aim to spend no more than 30 minutes on this section.**

## **25** When experts don't agree, what do we do?

Some experts on global warming say that the changes in the atmosphere produced by human activities cannot be reversed, and that our descendants will be unable to survive. Others maintain that the changes are not irreversible, if all countries decide to strictly limit their emissions of carbon dioxide. Another group of experts say that the changes in atmosphere are just fluctuations that have happened many times in the past and that there is no need to do anything.

Critically examine these conflicting views.

(16)





N 3 6 1 5 4 A 0 1 5 2 0

15

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**26** The development of new medicines highlights disagreements about the scientific value of testing new drugs on animals. While many researchers argue that animal testing is unavoidable, there is a strongly held opposing view that animal testing is no longer necessary.

Assess the merits of these two views, including scientific evidence which might support them.

(16)





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N 3 6 1 5 4 A 0 1 9 2 0

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**20**

