

General Studies

Advanced GCE A2 H479

Advanced Subsidiary GCE AS H079

Mark Schemes for the Units

January 2009

H079/H479/MS/R/09J

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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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F731 The Cultural and Social Domains

AS Unit 1: *The Cultural and Social Domains* (F731)

70% of the total AS GCE marks
2 hrs written paper
120 marks

This paper has four sections:

Section A: Candidates focus upon the Cultural Domain and are provided with focused resource material on which they answer a series of short, structured questions.

Section B: Candidates focus upon the Cultural Domain and are required to write at greater length on one of three topics.

Section C: Candidates focus upon the Social Domain and are provided with focused resource material on which they answer a series of short, structured questions.

Section D: Candidates focus upon the Social Domain and are required to write at greater length on one of three topics.

Assessment Objectives

AO1 Demonstrate Knowledge and Understanding

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

Guidance for Examiners

Do not use ticks. It is essential that your annotations show clearly why marks have been awarded or withheld – your team leader will assess your annotation as well as your accuracy.

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 example
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

Stages to an essay mark

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

Consider its position within the level and a possible mark.

Fine tune the mark by considering the Assessment Objectives.

Write a full summative comment using the AO statements from the Generic Mark Descriptors as a comment bank.

eg	AO1	good knowledge very limited knowledge and eg
	AO2	examples given
	AO3	personal experience relevant restricted personal experience
	AO4	clearly written inaccurate Spg

You may make comments additional to the AO statements but **NOT** instead of them. Such comments must be positive and specific, e.g. *excellent use of specialist knowledge, AO4 notable for clarity and elegance, some unusual egs well developed, well integrated AO3.*

Enter the final mark in a circle.

If bullet points are used where continuous prose is asked for, a maximum of 20 marks is available for a 30-mark question.

Examiners should apply the generic mark scheme to make their initial assessment using a 'best fit', holistic approach. Reference should be made to the indicative content and the assessment objectives to arrive at the final mark.

Generic Levels Mark Scheme for essay questions marked out of 30

AO1	Level descriptor	Marks
	<i>The candidate demonstrates the following abilities where appropriate to:</i>	
Level 5	<ul style="list-style-type: none"> select, use and integrate a very good range of relevant knowledge; show a good understanding of the concepts involved; 	8
Level 4	<ul style="list-style-type: none"> select, use and integrate a good range of relevant knowledge; show understanding of the concepts involved; 	6-7
Level 3	<ul style="list-style-type: none"> select, use and integrate a range of relevant knowledge; show an adequate understanding of the concepts involved; 	4-5
Level 2	<ul style="list-style-type: none"> select, use and integrate a limited range of relevant knowledge; show a modest understanding of the concepts involved; 	2-3
Level 1	<ul style="list-style-type: none"> select, use and integrate some knowledge which may not be accurate; show a restricted understanding of the concepts involved. 	1
AO2	Level Descriptor	Marks
	<i>The candidate demonstrates the following abilities where appropriate to:</i>	
Level 5	<ul style="list-style-type: none"> interpret and analyse issues and problems well and evaluate them appropriately; use evidence to develop complex reasoned arguments and draw sound conclusions on the evidence 	9-10
Level 4	<ul style="list-style-type: none"> interpret and analyse issues and problems and evaluate them competently; use evidence to develop reasoned arguments and draw conclusions on the evidence 	7-8
Level 3	<ul style="list-style-type: none"> undertake some interpretation and analysis of issues and problems and make a superficial evaluation; use evidence to develop arguments and draw limited conclusions 	5-6
Level 2	<ul style="list-style-type: none"> demonstrate limited interpretation and analysis of issues and problems with limited evaluation; use evidence to develop limited arguments and draw limited conclusions. 	3-4
Level 1	<ul style="list-style-type: none"> demonstrate poor interpretation and analysis of issues, problems and evaluation; recognise arguments and conclusion. 	1-2

AO3	Level descriptor	Marks
	<i>The candidate demonstrates the following abilities where appropriate to:</i>	
Level 4	<ul style="list-style-type: none"> demonstrate very good awareness of the differences between types of knowledge; have a very good appreciation of the strengths and limitation of the different types of knowledge; 	4
Level 3	<ul style="list-style-type: none"> demonstrate good awareness of the differences between types of knowledge; have a good appreciation of the strengths and limitations of the different types of knowledge; 	3
Level 2	<ul style="list-style-type: none"> demonstrate awareness of the differences between types of knowledge; have an appreciation of the strengths and limitations of the difference types of knowledge; 	2
Level 1	<ul style="list-style-type: none"> demonstrate a restricted awareness of the differences between types of knowledge; have little appreciation of the strengths and limitations of the different types of technology. 	1
AO4	Level descriptor	Marks
	<i>The candidate demonstrates the following abilities where appropriate to:</i>	
Level 5	<ul style="list-style-type: none"> communicate complex ideas clearly and accurately, using specialist vocabulary where appropriate, in a concise, logical and relevant way; use a wide range of the rules of grammar punctuation and spelling with accuracy and facility. 	8
Level 4	<ul style="list-style-type: none"> communicate ideas clearly and accurately, using specialist vocabulary where appropriate, in a concise, logical and relevant way; use a range of the rules of grammar, punctuation and spelling with accuracy and facility 	6-7
Level 3	<ul style="list-style-type: none"> communicate clearly, using some specialist vocabulary with facility; use some of the rules of grammar, punctuation and spelling with facility 	4-5
Level 2	<ul style="list-style-type: none"> communicate ideas with limited clarity, using some specialist vocabulary; use some rules of grammar, punctuation and spelling 	2-3
Level 1	<ul style="list-style-type: none"> communicate with little clarity using occasional specialist terms; use poor grammar and punctuation, and inaccurate spelling. 	1

Section A

1 (a) Consider Source 1.

Outline three ways in which assistive technology can make a difference to people's lives.

- it can give people (such as those with mental health and learning disabilities) greater independence so that they do not have to rely on other people to make contact for them
- it can enable them to complete tasks that they would never have been able to do in the past such as attend appointments at a distance and actually see their consultant
- contacts and discussion become more meaningful as there is the extra dimension of being able to see the person and experience greater emotional involvement
- it can help people to cook, shower and carry out many domestic chores and jobs otherwise impossible – generally better communication.

The question does not limit candidates in their responses to people with learning difficulties or mental needs. Examiners may therefore be inclusive in accepting ways in which peoples' lives are made different by assistive technology.

[9]

Examiners may credit further plausible and justified points not immediately evident in the text. A simple statement of a way would warrant 1 mark. To gain a maximum of 3 marks for each way there would need to be evidence of development or exemplification. Annotate using W1, W2, W3, D, E.g. 3x3=9

(b) Consider the three points in Source 2.

(i) Outline a potential problem with the suggestion made in point 1.

Personal contact is almost mandatory as far as consulting a GP about medication is concerned. Poor picture or sound quality may not allow a true picture of symptoms to be seen. This would make any examination of the patient, which may be necessary, more difficult.

[3]

(ii) How might video support be 'a highly valuable additional technique' (point 2)?

In cases of emergency it could be very useful in gauging the seriousness of a situation without having to wait for the arrival of an ambulance crew or paramedic. This in turn might save money as well as time and lives.

[3]

(iii) Suggest a further way in which video support might be used in healthcare (point 2).

- to assist midwives, psychiatric social workers, for example
- telediagnosics involving several health professionals
- case conferences without the patient having to attend the hospital
- an alternative and addition to written records
- for training purposes.

[3]

Section A

- (iv) **Explain why the nurse finds it easier to gauge a resident's well-being over the videophone (point 3).**

A resident cannot reveal everything in the tone of the voice. Facial and other organic changes may be symptoms of some conditions. The added dimension of eye contact can rule out or confirm many problems.

*The information provided for part (b) is general and not exclusive. Candidates may offer many other worthwhile and valid explanations or extensions and developments of points. Examiners must use their professional judgement in valuing their worth. A valid point may be awarded a tick (✓) with **D** being used if the point is shaped and developed.*

[3]

- (c) **Outline two ways in which developments in telecommunications, other than that of the videophone, could help with a disability or illness.**

[9]

Possible ways may include:

- immediate contact 24 hours a day
- satellite navigation enabling medical staff to find and reach remote locations
- paging systems for the elderly living alone
- digital signal clarity preventing misunderstandings through loss of quality
- internet and fax for the transmission of records and results over long distances instantly – stops delays in treatments.

There are many possibilities, some of which may relate to the candidate's own experiences.

Max 9 Marks:

- *a thorough examination of two developments with coherent and justified support* [8-9]
- *some knowledge of two ways with some development of the ideas* [6-7]
- *imbalanced approach with limited development* [3-5]
- *simple statement of one or two ways.* [1-2]

If a candidate covers one way in detail, maximum 4 marks.

Section A Total [30]

Section B

- 2 Consider both the positive and negative effects that a strict family upbringing might have on a young person's beliefs and values. [30]

There will normally be both positive and negative effects of a strict family upbringing and these can have a great effect on a person's beliefs and values. Examiners may find some effects given as positives from one candidate and negatives from another. Effects should be assessed within the context in which they are placed by the candidate.

Strict family upbringing would be reflected by attitudes towards:

- right and wrong
- verbal communication
- the family and other people
- discipline
- diet
- religious values
- politics and which party to support
- love and respect for others
- sex and sexual behaviour
- a solid work ethic
- money and wealth.

Positive Effects	Negative Effects
<ul style="list-style-type: none"> • traditions and stability to pass on to future generations • old beliefs and values are regarded highly • moral values remain important • important element in cultural stability. 	<ul style="list-style-type: none"> • family members can feel trapped and undervalued • encourages the individual to break free and explore the unknown • can result in promiscuity through ignorance • beliefs can remain steady but values change – ignorance can prove costly.

The question offers lots of scope for personal case studies and the introduction of a range of knowledge from the candidate's studies.

*Annotate using **F** for element of family upbringing, **+ve** for positive point and **-ve** for negative point.*

Exemplification of candidate performance at level 5, 3 and 2.

The exemplification is provided to give a general indication of the standards of achievement likely to have been shown by the candidates awarded the particular levels. The level awarded will depend, in practice, upon the extent to which the candidate has met the assessment objectives overall.

Levels	Descriptors	Marks
Level 5	Answers will offer a comprehensive outline and assessment of some positive and negative elements of a strict family upbringing with reference to beliefs and values (AO1) and use complex reasoning with a good understanding of the effects on a young person (AO2). There will be evidence of personal opinion and/or experience to support ideas (AO3) as well as clear layout and accurate communication (AO4).	27-30
Level 3	Answers will display some understanding of some positive and negative elements of a strict family upbringing with reference to beliefs and values (AO1). The analysis and examples will be relevant but superficial in content and structure (AO2/3). Communication will be clear and errors will not blur the understanding of the key points (AO4).	13-20
Level 2	Answers will concentrate on descriptions and fail to adequately support with relevant analysis (AO1/2). There will be an absence of personal opinion and the ideas will mostly be unlinked or unstructured (AO3). Communication will display weaknesses which hamper clear understanding (AO4).	8-12

Section B

- 3 **Discuss the ways in which daily newspapers attempt to meet the expectations of their readers in their reporting of current news stories.** [30]

By using the command 'discuss' examiners should be looking for a balanced response.

Daily newspapers

These include **broadsheets** (The Guardian, The Daily Telegraph, The Independent, and The Times) and **tabloids** (The Mirror, The Star, The Sun, (sometimes called 'The Red Tops'), The Daily Mail, The Daily Express).

Candidates may wish to include reference to regional dailies such as The Evening Standard, The Manchester Evening News, and The Birmingham Post.

This would be a worthwhile pursuit and an interesting comparison exercise if it was to be followed through.

Meeting the expectations of readers

What do readers want?

- accuracy
- detail
- realism (excitement)
- colour photography
- speculation/answers/views
- a story that they can understand and follow.

Strengths of a daily newspaper	Weaknesses of a daily newspaper
<ul style="list-style-type: none"> • skilled reporters who know how to write for their readership • similarly, photographers who know how to get 'that picture.' • stories are tailored – tabloids give the main points, broadsheets offer more depth – readers have choice • some readers require the superficial coverage of an issue not the extensive analysis offered by television. 	<ul style="list-style-type: none"> • lacks the extra dimension of television • newspapers can never be live • the competition between newspapers to publish first causes some stories to grow 'cold.' • many newspapers notoriously lack objectivity and therefore can be accused of inaccuracies • some news reporting is syndicated and therefore lacks the strength of having a staff reporter 'on the spot.'

Section B

Candidates are required to consider daily newspapers not the television. It would seem sensible to cover a range of different newspapers or at least two contrasting styles. It is reasonable to expect candidates to cite their own choice of news stories as a source of illustration. Examiners must take these choices on face value and not offer judgement as to their worthiness. Justifying views and offering comparative analysis will lead to credit for AO3.

*Annotate using **S+** for strength and **W-** for weakness.*

Exemplification of candidate performance at level 5, 3 and 2.

The exemplification is provided to give a general indication of the standards of achievement likely to have been shown by the candidates awarded the particular levels. The level awarded will depend, in practice, upon the extent to which the candidate has met the assessment objectives overall.

Levels	Descriptors	Marks
Level 5	Answers will cover a range of issues relating to newspapers (AO1) and use complex reasoning with a good understanding of the relative strengths and weaknesses (AO2). There will be evidence of personal opinion and/or experience to support ideas (AO3) as well as clear layout and accurate communication (AO4).	27-30
Level 3	Answers will be imbalanced with reference to the strengths and weaknesses though supporting material will be adequate (AO1). The analysis and examples will be relevant but superficial in content and structure (AO2/3). Communication will be clear and errors will not blur the understanding of the key points (AO4).	13-20
Level 2	Answers will concentrate on one issue and fail to adequately support the points made (AO1/2). There will be an absence of personal opinion and the ideas will mostly be unlinked and unstructured (AO3). Communication will display weaknesses which hamper clear understanding (AO4).	8-12

Section B

- 4 **With reference to one art form with which you are familiar, outline and evaluate two innovations that have taken place in recent years.** **[30]**

*At the outset examiners should remember that the candidates are required to be familiar with **two** out of the nine areas of the arts printed on Page 10 of the specification, namely:*

architecture, fashion, photography, painting, sculpture, stage, screen, music and the written word.

Refer to one – make a choice from the list. This could be a subsidiary of one of the above – such as ‘rap’ music or digital photography.

Innovations may include:

- technological advance (publishing)
- ‘retro’ fashion and preference (new ways with old designs)
- new materials (more durable)
- exceeding limits (dimensions)
- inventions (making tasks easier or extending boundaries)
- unique interpretations of characters (historical performance)
- mastery of technique (playing the unplayable).

It is unimportant as to whether the innovation is an improvement or detrimental. It is important for the candidates to evaluate in a fair and balanced way. This would clearly involve some comparative analysis.

Positive features of innovation:

- progress
- easier
- environmentally friendly
- faster process
- more accuracy
- representative of contemporary life.

Negative features of innovation:

- too ‘clean’/ lack of feeling
- some art forms/performances cannot be bettered
- cost
- exclusivity makes innovation inaccessible until more accepted and thereby no longer innovative.

Section B

Candidates have a free hand on how to approach this question and the outcome will be determined by the examples chosen and their expertise in explaining the changes, for better or worse. A balanced examination of the old and new allows for the access of marks in AO3.

Annotate using I1, I2 for innovations.

Exemplification of candidate performance at level 5, 3 and 2.

The exemplification is provided to give a general indication of the standards of achievement likely to have been shown by the candidates awarded the particular levels. The level awarded will depend, in practice, upon the extent to which the candidate has met the assessment objectives overall.

Levels	Descriptors	Marks
Level 5	Answers will cover a range of issues relating to the chosen art form (AO1) and use complex reasoning with a good understanding of the innovations, improvements and/or detriments (AO2). There will be evidence of personal opinion and/or experience to support ideas (AO3) as well as clear layout and accurate communication (AO4).	27-30
Level 3	Answers will be imbalanced with knowledge shown of the art form though supporting material regarding innovations will be adequate (AO1). The analysis and examples will be relevant but superficial in content and structure (AO2/3). Communication will be clear and errors will not blur the understanding of the key points (AO4).	13-20
Level 2	Answers will concentrate on descriptive elements of the chosen art form and fail to adequately support with points regarding innovations and their relative success (AO1/2). There will be an absence of personal opinion and the ideas will mostly be unlinked and unstructured (AO3). Communication will display weaknesses which hamper clear understanding (AO4).	8-12

Section B Total [30]

Section C Answer all parts of the question in this section.

5 (a) Briefly explain the meaning of the following phrases as used in Source 3:

(i) 'voting with their feet' [line 1] [3]

Expressing a negative view of the process by walking away and not voting.

(ii) 'voter apathy' [lines 7-8] [3]

People who are entitled to vote cannot be bothered to go through the process of casting a vote because they are disaffected and uninterested in politics.

(iii) 'civic duty' [line 12] [3]

Civic duty implies a responsibility/duty to support/contribute to life in the community/local place in which they live.

Candidates can be awarded up to the maximum of 3 marks depending on the level of detail and clarity of explanation given. A simple statement would be worth 1 mark. Answers may be credited using ticks (✓).

(b) (i) What is it about 'the competition between the parties' that is putting the voters off? [lines 9-10] [3]

- personal character assassinations
- concentrating on past failures rather than future promises
- underhand and lurid publicity about policies
- difficult to differentiate between parties.

One developed idea is worthy of full marks though a simple list of valid points is equally worthy.

(ii) Give one reason why voters think that 'they cannot make a difference to the election outcome.' [lines 10-11] [2]

- the party that they support has no chance of winning the seat/constituency which they are in – they feel that their vote is wasted
- if they have radical or different views from the rest of the voters their ideas and views will not be adequately represented therefore their presence will make little difference
- the first past the post system makes it difficult for minority parties.

Allow any valid reason. A simple statement gains 1 mark; a developed statement gains 2 marks.

Section C

- (c) Consider **Source 4**. For **each** of the four images, outline **one** strength and **one** weakness in the method of voting illustrated.

Sample ideas:

IMAGE	Strength	Weakness	
A show of hands	Quick decision; collective support.	Miscounting; hesitancy; people out of the room at the time of the vote which would cause inaccuracy.	[4]
A secret ballot	Anonymity; secure at the moment of voting; accountable evidence for inspection; less control by those in power.	An opportunity for the spoiling of ballot papers without anyone knowing. Inaccuracies in counting votes using people rather than technology.	[4]
An electronic voting tablet	Speed; provide data for analysis, multiple input stations.	Equipment can fail, computers can be 'hacked into' and results can become corrupt. People are mistrusting of technology and therefore will avoid voting.	[4]
A postal vote	Release from having to be present at polling station; immobile and very mobile, can vote; voters overseas can participate.	Inconsistencies in the postal system can cause problems particularly if the vote is from overseas.	[4]

Some points could be used for any of the images e.g. forgetfulness. Examiners are asked to use their professional judgment in awarding marks for well-reasoned ideas. A simple statement of an advantage or disadvantage would warrant 1 mark. If the point is developed then award 2 marks. $2+2 \times 4 = 16$

Total
[16]

Section C Total [30]

Section B

- 6 **Outline the role of a pressure group. Assess two of the means by which pressure groups try to achieve their goals.** [30]

The essay has two parts. Firstly, the outline of a pressure group's role which, at best will offer balanced views of their relative value and at worst will be simply descriptive. Secondly, assessing means of achieving their goals – a more demanding and thoughtful part of the essay which may possibly have a leaning towards the negative. The more informed candidate will see the value of pressure groups in a democratic society.

The role of pressure groups

- to seek to influence government policy or public opinion
- to be concerned with one particular issue (poverty, animal welfare, the environment)
- to seek to influence MPs and Ministers of State to change the law to suit their aims.

Types of pressure group**Professionals**

The Law Society

The BMA

Institute of Directors

Trade Associations

The CBI

Association of Chief Police Officers

Trade Unions

UNISON

National Union of Teachers

National Farmers Union

Environment

The National Trust

Greenpeace

Country Landowners Association

Leisure

Legalise Cannabis Campaign

Campaign for Real Ale

British Field Sports Society

Countryside Alliance

It is important for examiners to recognise the range of pressure groups that could be introduced as the candidature for this examination originates in both rural and urban areas.

Means to achieve their goals

- by having ‘insider status’ as pressure groups tend to be experts in a field and governments need this expertise
- ‘outsider status’ occurs when the demands of the pressure group are too excessive and not in the national interest (in the view of the government, such as the Campaign for Nuclear Disarmament in the 1980s, or the controversial actions of the Animal Liberation Front)
- if their aims are reasonable and acceptable to many members of the public they become a group which the government needs on their side and therefore it is easy to find common ground and make progress
- lobbying parliament is an effective ways of gaining status for a pressure group. This may come in the form of a Private Members Bill, Backbench Committees or Select Committees
- environmental pressure groups have become very good in manipulating the media and developing their own internal media departments – interviews (appearing on Question Time), sound bites, addressing topical issues in television drama are all popular ploys and techniques used
- direct action – risky as it depends on public sympathy, support, timing and damage limitation. Most common are protest marches, boycotts and publicity stunts.

In outlining the ways in which pressure groups achieve their goals it is possible to cover either positive, negative or both approaches. Best answers will consider the relative effectiveness of the methods used and offer some case study evidence.

*Annotate using **R1, R2** for role and **M1, M2** for means.*

Exemplification of candidate performance at level 5, 3 and 2.

The exemplification is provided to give a general indication of the standards of achievement likely to have been shown by the candidates awarded the particular levels. The level awarded will depend, in practice, upon the extent to which the candidate has met the assessment objectives overall.

Levels	Descriptors	Marks
Level 5	Answers will offer a comprehensive outline and assessment of pressure groups (AO1) and use complex reasoning with a good understanding of the methods used in order for their goals to be achieved (AO2). There will be evidence of personal opinion and/or experience to support ideas (AO3) as well as clear layout and accurate communication (AO4).	27-30
Level 3	Answers will display some understanding of the nature of a pressure group (AO1). The analysis and examples will be relevant but superficial in content and structure (AO2/3). Communication will be clear and errors will not blur the understanding of the key points (AO4).	13-20
Level 2	Answers will concentrate on a description of pressure groups and fail to adequately support with relevant analysis (AO1/2). There will be an absence of personal opinion and the ideas will mostly be unlinked and unstructured (AO3). Communication will display weaknesses which hamper clear understanding (AO4).	8-12

Section B

- 7 Outline two methods of tackling traffic congestion in our large cities. Consider the strengths and weaknesses of each method. [30]

The essay demands more of the candidate than a simple list of measures (which would clearly generate few marks). There is the need for the examination of the relative success or failure of the measure. Here lies the discriminating factor and candidates will need to examine this element with some discernment and balance.

Methods of tackling congestion

- banning cars from city centres
- taxing petrol and cars at a higher rate
- giving priority to buses (bus lanes)
- make heavy goods transit choose rail instead of clogging roads
- electronic traffic control methods
- encourage public transport – ‘park and ride’, trams
- car sharing
- encourage use of the bicycle
- congestion charging.

The success or failure cited may be dependent on reality or speculation (it is possible that some A level students may have studied this concept in Geography or Environmental Science). It seems sensible to offer a list of possible routes that the candidates may take rather than a list of worked examples.

Strength or weakness criteria

- fairness and evenness of application (bans and taxes)
- public take up
- environmental improvements
- costs to the consumer (e.g. in delivery charges)
- effects on the world oil market (supply and demand changes)
- improvements or failures in road safety and accidents
- resulting political changes
- perceived improvements in public transport and infrastructure.

*Annotate using **M1**, **M2** for methods, + for strength and – for weakness.*

Exemplification of candidate performance at level 5, 3 and 2.

The exemplification is provided to give a general indication of the standards of achievement likely to have been shown by the candidates awarded the particular levels. The level awarded will depend, in practice, upon the extent to which the candidate has met the assessment objectives overall.

Levels	Descriptors	Marks
Level 5	Answers will offer a comprehensive outline and assessment of three ways of relieving congestion (AO1) and use complex reasoning with a good understanding of the methods used in achieving success or failure (AO2). There will be evidence of personal opinion and/or experience to support ideas (AO3) as well as clear layout and accurate communication (AO4).	27-30
Level 3	Answers will display some understanding of three ways of relieving congestion (AO1). The analysis and examples will be relevant but superficial in content and structure (AO2/3). Communication will be clear and errors will not blur the understanding of the key points (AO4).	13-20
Level 2	Answers will concentrate on a description of three ways of relieving congestion and fail to adequately support with relevant analysis (AO1/2). There will be an absence of personal opinion and the ideas will mostly be unlinked and unstructured (AO3). Communication will display weaknesses which hamper clear understanding (AO4).	8-12

Section B

- 8 Choose two communities, one in which there is tension and one in which there is harmony. Analyse both communities to show what has led to the situation in which they find themselves. [30]

The choice of two communities is crucial in the answering of this question.

Making choices

Two communities may be determined by:

- class
- wealth
- age
- ethnicity
- religious belief
- sporting rivalry
- geographical location
- type of school

aswell as any valid alternatives.

Tensions

Arsenal and Spurs
Lancashire and Yorkshire
Catholics and Protestants
Asians and West Indians
wealthy and poor
owner occupiers and council tenants
employed and unemployed

Harmony

post – troubles Northern Ireland
West and East Germany
ethnic groups brought together by local community associations
soccer and rugby fans when supporting the National Team
post –apartheid South Africa.

This is not a complete list but includes what may be considered the most popular alternatives.

In outlining the key issues, candidates may look at:

- racial, religious and social tension brought about by challenges to the local and national norms we set
- friction between groups of different racial and religious backgrounds and where this has been successfully tackled in a community
- tensions can be caused by unemployment, and the promotion of intolerance
- harmony exists where there is a respect for boundaries, where confrontations are managed respectfully and without fear or harm and where community leaders play a major role in promoting shared events.
- national and local politicians promote harmony
- harmony may exist because the community is homogenous.

By offering an indeterminate number of issues to the candidate it is possible to consider tackling this question from a local, national, and global position, thereby allowing candidates to use their own experience to gain valuable AO3 marks.

Annotate using **C1**, **C2** for communities, **T** for tension and **H** for harmony

Exemplification of candidate performance at level 5, 3 and 2.

The exemplification is provided to give a general indication of the standards of achievement likely to have been shown by the candidates awarded the particular levels. The level awarded will depend, in practice, upon the extent to which the candidate has met the assessment objectives overall.

Levels	Descriptors	Marks
Level 5	Answers will offer a comprehensive outline and assessment of two communities (AO1) and use complex reasoning with a good understanding of the methods used in achieving stability and tackling problems (AO2). There will be evidence of personal opinion and/or experience to support ideas (AO3) as well as clear layout and accurate communication (AO4).	27-30
Level 3	Answers will display some understanding of two communities (AO1). The analysis and examples will be relevant but superficial in content and structure (AO2/3). Communication will be clear and errors will not blur the understanding of the key points (AO4).	13-20
Level 2	Answers will concentrate on a description of two communities and fail to adequately support with relevant analysis (AO1/2). There will be an absence of personal opinion and the ideas will mostly be unlinked and unstructured (AO3). Communication will display weaknesses which hamper clear understanding (AO4).	8-12

Section D Total [30]
Paper Total [120]

F732 The Scientific Domain

Overview of changes

AS Unit 2: *The Scientific Domain (F732)*

30% of the total AS GCE marks This paper has **two** sections:

1 hr written paper

60 marks

Section A: Candidates focus upon the Scientific Domain and are provided with focused resource material on which they answer a series of short, structured questions.

Section B: Candidates focus upon the Scientific Domain and are required to write at greater length on **one** of **three** topics.

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.

Guidance for Examiners**Do not use ticks.**

Use the following annotations. (In any one script you are not expected to use all of these.)

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 example
Sp/G/Eng	spelling, grammar and language error; you are not expected to correct all of them
(...)	indicates a choice or a key phrase
Rubric	rubric infringement
D	description
R	reason
Rep	repetition, often of the question
Ev	evaluation

Stages to an essay mark

Read and annotate the candidate's response.

Consider its position within the level and a possible mark.

Write a one or more line comment reflecting the AO statements.

eg	AO1	good knowledge very limited knowledge and eg
	AO2	examples given
	AO3	personal experience relevant restricted personal experience
	AO4	clearly written inaccurate Spg

Enter the final mark in a circle.

Generic Mark Scheme for Questions with 30 marks

AO1	Level Descriptor The candidate demonstrates the following abilities where appropriate to:	Marks
Level 5	<ul style="list-style-type: none"> select, use and integrate a very good range of relevant knowledge show a good understanding of the concepts involved 	8
Level 4	<ul style="list-style-type: none"> select, use and integrate a good range of relevant knowledge show an understanding of the concepts involved 	6-7
Level 3	<ul style="list-style-type: none"> select, use and integrate a range of relevant knowledge show an adequate understanding of the concepts involved 	4-5
Level 2	<ul style="list-style-type: none"> select, use and integrate a limited range of relevant knowledge show a modest understanding of the concepts involved 	2-3
Level 1	<ul style="list-style-type: none"> select, use and integrate some knowledge which may not be accurate show a restricted understanding of the concepts involved. 	1
AO2	Level Descriptor The candidate demonstrates the following abilities where appropriate to:	
Level 5	<ul style="list-style-type: none"> interpret and analyse issues and problems well and evaluates them appropriately use evidence to develop complex reasoned arguments and draw sound conclusions on the evidence 	9-10
Level 4	<ul style="list-style-type: none"> interpret and analyse issues and problems well and evaluates them competently use evidence to develop reasoned arguments and draw sound conclusions on the evidence 	7-8
Level 3	<ul style="list-style-type: none"> undertake some interpretation and analysis of issues and problems and make a superficial evaluation use evidence to develop arguments and draw conclusions 	5-6
Level 2	<ul style="list-style-type: none"> demonstrate limited interpretation and analysis of issues and problems with limited evaluation use evidence to develop limited arguments and draw limited conclusions 	3-4
Level 1	<ul style="list-style-type: none"> demonstrate poor interpretation and analysis of issues, problems and evaluation recognise arguments and conclusion 	1-2

AO3	Level Descriptor The candidate demonstrates the following abilities where appropriate to:	Marks
Level 5	<ul style="list-style-type: none"> demonstrate very good awareness of the differences between types of knowledge have a very good appreciation of the strengths and limitations of the different types of knowledge 	6
Level 4	<ul style="list-style-type: none"> demonstrate good awareness of the differences between types of knowledge have a good appreciation of the strengths and limitations of the different types of knowledge 	5
Level 3	<ul style="list-style-type: none"> demonstrate awareness of the differences between types of knowledge have an appreciation of the strengths and limitations of the different types of knowledge 	4
Level 2	<ul style="list-style-type: none"> demonstrate limited awareness of the differences between types of knowledge have a restricted appreciation of the strengths and limitations of the different types of knowledge 	3
Level 1	<ul style="list-style-type: none"> demonstrate very limited awareness of the differences between types of knowledge have a very restricted appreciation of the strengths and limitations of the different types of knowledge. 	1-2
AO4	Level Descriptor The candidate demonstrates the following abilities where appropriate to:	
Level 5	<ul style="list-style-type: none"> communicate complex ideas clearly and accurately , using specialist vocabulary where appropriate, in a concise, logical and relevant way use a wide range of the rules of grammar, punctuation and spelling with accuracy and facility 	6
Level 4	<ul style="list-style-type: none"> communicate ideas clearly and accurately, using specialist vocabulary where appropriate, in a concise, logical and relevant way Use a range of the rules of grammar, punctuation and spelling with 	5
Level 3	<ul style="list-style-type: none"> communicate clearly, using some specialist vocabulary with facility use some of the rules of grammar, punctuation and spelling with facility 	4
Level 2	<ul style="list-style-type: none"> communicate ideas with limited clarity, using some specialist vocabulary use some rules of grammar, punctuation and spelling 	3
Level 1	<ul style="list-style-type: none"> communicate with little clarity using occasional specialist terms use poor grammar and punctuation, and inaccurate spelling. 	1-2

Section A

1

Answer **all** of the questions in this section.

The lines of verse that follow describe some aspects of English history around 1700. This was a period when scientists questioned some religious ideas.

Read the following lines and answer the questions that follow:

Did we think we were God on high
To dare to question *How* and *Why*?
But in that fast-evolving era,
What we call 'science' came much nearer.

[5]

When Galileo had the face
To say the Earth revolves in space,
It gave religious folk a fright:

Did scripture really have it right?

From then, the human intellect

Became a scalpel, to dissect

[10]

The Handiwork of the Creator;

And Newton showed, a little later,

That mathematics could apply

To regions far beyond the sky.

[from A Rhyming History of Britain, 55BC to AD1966 by James Muirden published by Constable, 2003, 1-84119-632-0]

(a) **Suggest what the author means by the following phrases:**

(i) **To dare to question *How* and *Why*? (line 2)**

[3]

Assessment Objectives			
AO1	AO2	AO3	AO4
1	1		1

As science acquired new knowledge the traditional, often religious explanations, were questioned. The questions asked were 'how' things worked and 'why' in that way.

One mark for each statement (1) eg 'to dare to question' (1), 'how' (1), 'why' (1).

One mark reserved for AO4 (grammar, spelling or clarity).

- (ii) **Became a scalpel, to dissect (line 10)** [3]

Assessment objectives			
AO1	AO2	AO3	AO4
1	1		1

A scalpel is a very sharp knife used for surgery and anatomical dissection, to cut into, open up, in this case explore and understand physical features experienced by people. Metaphorical use also accepted.

One mark for each statement scalpel to cut (1), 'to dissect' to open/take apart(1).

One mark reserved for AO4 (grammar, spelling or clarity).

- (iii) **That mathematics could apply
To regions far beyond the sky (lines 13 and 14).** [3]

Assessment objectives			
AO1	AO2	AO3	AO4
1	1		1

The application of measurement and mathematical reasoning to the whole of the earth and to space. Measurement supported or replaced philosophical or mythological explanations.

Challenge to deism; harmonising science and thought.
Challenge to the divine watchmaker.

One mark for each statement eg 'That mathematics could apply' (1), 'To regions far beyond the sky' (1).

One mark reserved for AO4 (grammar, spelling or clarity).

- (b) **Using your own words describe the changing relationship between religion and science as outlined in the lines of verse.** [3]

Assessment objectives			
AO1	AO2	AO3	AO4
			3

A key feature is the clarity of summary. For example key points to include are:

- arrival of science to question religious explanations
- questioning of the role of the creator
- scientific methods used by Newton.

Allow alternatives covering similar territory.

Allow a small amount of repetition.

Note the mark allocation is for AO4.

No specific knowledge of Newton is required but do credit any that appears.

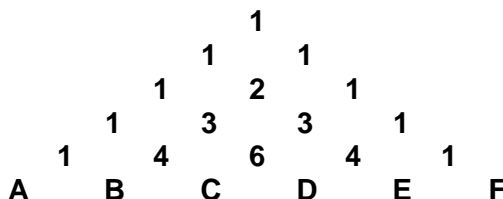
A bullet point summary would be acceptable though unlikely to be subtle enough to gain full marks.

Allow one mark for each point clearly identified

AO4 Clarity of each of the ideas given above at 1 each.

2

This question is about Pascal’s triangle and Fibonacci numbers. The arrangement of numbers shown below is called Pascal’s triangle. Each row builds on the previous row.



(a) Write down the values for A to F in the next row of the triangle. Explain how you achieved your answer. [4]

Assessment objectives			
AO1	AO2	AO3	AO4
2	2		

A=1 B=5 C=10 D=10 E=5 F=1

One mark for each correct answer to A-F up to 2@1=2.

Two marks for explanation. Each number is the sum of the two above it in the previous row. Credit examples.

Accept alternative explanations that work out the number pattern correctly eg powers of 2, diagonals.

The explanation must be related to the two correct answers.

Examiners should have part marks inside margin [2+2]

(b) Describe three patterns to be found on the diagonals of the triangle. [6]

Assessment objectives			
AO1	AO2	AO3	AO4
5	1		

Patterns include:

- line of ones on both outer diagonals
- consecutive numbers on first inner diagonal
- numbers 1, 3, 6... on second inner increasing by 2, 3, 4...

3 patterns clearly specified and located @ 2 each=6.

1 mark for the pattern.

1 mark for its location.

Allow diagrams to show location. Allow descriptive pattern words eg symmetrical.

(c) The following numbers are arranged to form a Fibonacci sequence.

1, 2, 3, 5, 8, 13, 21, 34...

The Fibonacci Ratio is found by dividing a number in the series by the one before.

Calculate, to two decimal places, the seven Fibonacci Ratios for these numbers.

What do you notice about the pattern produced? [8]

Assessment objectives			
AO1	AO2	AO3	AO4
6	2		

The Fibonacci Ratios are 2.00, 1.50, 1.67, 1.60, 1.63, 1.62, 1.62

Any 4 correct ratios [4]
 Recognition of convergence [2]
 Up and down at the start [1] gets near to [2]
 Stating convergence around 1.62 [2]

No marks for answers given in fractions.

Examiners should note this is sometimes called the Golden Section or Golden String. The value converges to 1.618033988. [For information].

Section B

Answer **one** question from this section.
Answers should be in continuous prose.

3

Each decade brings new scientific inventions. Here are inventions introduced in each decade of the last 70 years.

Decade	Invention	Invention	Invention
1940s	Atomic bomb	Aerosol spray	Kidney dialysis machine
1950s	Diet soft drinks	Oral contraceptives	Computer hard disk
1960s	Valium	Soft contact lenses	Computer mouse
1970s	VCR	Hepatitis B vaccine	Floppy disk
1980s	Synthetic skin	Genetically engineered organism	Digital cell phone
1990s	HIV inhibitor (slows the progress of the disease).	Viagra	World wide web
2000s	Artificial heart	Thinking shoes	iPOD

On the basis of the three inventions listed, select the decade that most benefited the health of people living at that time. [30]

Justify your choice.

Assessment Objectives			
AO1	AO2	AO3	AO4
8	10	6	6

This question involves:

- selection of one of the decades
- justification of selection using inventions listed
- link to everyday health of people.

Indicative content

This will depend upon the decade selected. No particular decade is favoured. Allow those who argue that each decade includes all the inventions from previous times.

When considering the various IT developments they need to be linked to health.

Allow justifications through negatives of other possible decades.

Levels	Level Descriptors	
Level 5	These candidates will select a decade and produce a developed justification using all three items from that period. Not all items will give the same support to the choice. Their answers will be clearly written with facility.	27-30
Level 3	These candidates will select a decade and will include justification using at least two items. Their answers will be clear with some limitations to their SPG.	13-20
Level 2	These candidates will select a decade but their justification will be fragmented and may not use all three items from the list. Their answers will not be clear with insecurity to their SPG. Their command of AO4 will be limited and inaccurate	8-12

Recommended annotation

Intro for introduction.

Ch for choice of decade.

J1, J2, J3 for each of the items in the list.

R for rejection of other decades.

Res for reservations about chosen decade.

K for knowledge.

Dev for development of justification.

Conc. for conclusion.

4

Scientists recognise at least four types of model.

<p>Type A: Hardware models.</p> <p>They include small models in wood, card and plastic eg the plan for a new building.</p>	<p>Type B: Teaching models.</p> <p>They show how something works eg using sandpapers to show friction.</p>
<p>Type C: Mathematical models.</p> <p>They usually involve a formula eg predicting population growth.</p>	<p>Type D: Statistical models.</p> <p>They involve collecting data and finding relationships using graphs and statistics. eg predicting life expectancy.</p>

Select one of these types of model. Show how it can help scientists' in their work. Identify and explain one of its weaknesses.

[30]

Assessment Objectives			
AO1	AO2	AO3	AO4
8	10	6	6

This question involves:

- selection of a type of model
- showing understanding of the model
- demonstration of how it helps scientists
- identification of one the model's shortcomings.

Beware repetition of information given but credit it when developed further.

Indicative content

A typical hardware model might be of a town centre, new building, valley and reservoir.

Type A models uses include:

- showing clients overall layout
- view of the future
- matching to surroundings
- can be used with virtual displays.

Type A models shortcomings include:

- static
- scale can be a problem.

A typical teaching model might be that of demographic transition, genetic drift, Socratic questioning.

Type B model uses include:

- demonstration for learners
- one process can be emphasised
- help clarify understanding and concepts.

Type B models shortcomings include:

- oversimplify a complex reality
- have alternative interpretations
- user error eg measurement.

A typical mathematical model would be of the interest gained on personal savings. The exponential growth model e^x would fit here.

Type C model uses include:

- prediction/forecasting
- multi-variables
- testing against observations.

Type C models shortcomings include:

- building complexity
- high level mathematics
- few forecast successes.

A typical statistical model might be one that uses a long series of data on climate change, measurements of human physique.

Type D model uses include:

- prediction using regression
- testing outcomes to observations.

Type D model shortcomings include:

- based upon data
- problems of variables
- past does not predict future.

Levels	Level descriptors	
Level 5	These candidates will select one of the types of model and develop a clear explanation of how it can help scientists in their work. They will also identify, with some development, one of the shortcomings of this type of model. Their answers will be clearly written with facility.	27-30
Level 3	These candidates will select one of the types of model and show how it can help scientists. They will also identify one of its shortcomings in outline. Their answers will be clear with some limitations to their SPG.	13-20
Level 2	These candidates will select one type of model but they will be insecure in showing how it might help scientists or in its shortcomings. Their answers will not be clear with insecurity to their SPG. Their command of AO4 will be limited and inaccurate.	8-12

Recommended annotation

Intro for introduction

MA, MB, MC, MD for the type of model selected.

H1, H2, and H3 for ways this type can help scientists.

Dev for development.

S1 for a shortcoming and dev if developed.

Conc. for conclusion.

- 5 'For every complex problem, there is a solution that is simple, neat, and wrong.' H. L. Mencken (1920). [30]

Describe how this quotation could be applied to an environmental management problem with which you are familiar.

Suggest an alternative management plan and explain why you feel it would be more successful.

Assessment Objectives			
AO1	AO2	AO3	AO4
8	10	6	6

This question involves:

- understanding the quotation
- applying the quotation to a flawed piece of environmental management
- suggestion of an alternative plan
- explanation of alternatives success.

Indicative content

- Occam's razor states 'Entia non sunt multiplicanda praeter necessitatem'. (Latin for "Entities should not be multiplied more than necessary"). That is, the fewer assumptions an explanation of a phenomenon depends on, the better it is
- using this principle may lead to oversimplification.

Applying the quote to a piece of environmental management:

- the simple solution to traffic congestion is to build more roads
- the simple solution to higher sea levels is to raise flood defences
- the simple solution to housing shortage is to build on green belts
- the simple solution to energy shortage is to open nuclear power plants
- the simple solution to waste disposal is landfill.

Suggestions of alternatives depend upon management issue selected:

- traffic congestion might be reduced by congestion charges, Park and Ride, more one-way streets
- flood defences might not be needed if carbon footprint reduced, Kyoto agreements honoured, emissions checked eg taxes
- houses built on 'Brownfield' sites. Growth encouraged in other regions, taxes on under-occupied houses
- energy shortages helped by better use of power, renewable power
- waste disposal to include 70% recycling, composting, education.

Levels	Level descriptors	
Level 5	These candidates will show a good understanding of the quotation. They will develop a clear case where environmental management has underperformed. They will suggest a more complex alternative. Their answers will be clearly written with facility.	27-30
Level 3	These candidates will show some understanding of the quotation. They will be able to find a scheme where the solution has been too simplistic. They will be insecure in their suggestion of an alternative approach. Their answers will be clear with some limitations to their SPG.	13-20
Level 2	These candidates will have only a limited understanding of the quotation. They will be able to describe a simple yet inappropriate solution to an environmental problem. They will produce a weak alternative plan. Their answers will not be clear with insecurity to their SPG. Their command of AO4 will be limited and inaccurate.	8-12

Recommended Annotation

Intro for introduction

A for application of the quote to an environmental managerial problem

F for flaw in the solution to the problem

P for alternative plan

E for explanation of why it would be more successful.

e.g. for example

Conc. for conclusion.

Grade Thresholds

Advanced GCE General Studies (H079/H479)
January 2009 Examination Series

Unit Threshold Marks

Unit		Maximum Mark	A	B	C	D	E	U
F731	Raw	120	91	81	71	62	53	0
	UMS	140	112	98	84	70	56	0
F732	Raw	60	46	41	36	31	26	0
	UMS	60	48	42	36	30	24	0

Specification Aggregation Results

Aggregation for the Advanced Subsidiary GCE is available from June 2009.

For a description of how UMS marks are calculated see:
http://www.ocr.org.uk/learners/ums_results.html

Statistics are correct at the time of publication.

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