

General Studies

Advanced GCE F734

Culture, Science and Society: Making connections

Mark Scheme for June 2010

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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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A2 Unit F734: *Culture, Science and Society: Making Connections*

25% of the total Advanced GCE
marks 1.5h written paper
100 marks

This question paper consists of two compulsory questions.
The questions require interpretation of, and comment on,
stimulus material provided and extended writing in essay
form.

Candidates answer **two** questions.

This unit is synoptic.

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 50 marks

A01	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. 	9-10
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. 	7-8
Level 3	<ul style="list-style-type: none"> select, use and integrate a range of relevant knowledge show an adequate understanding of the concepts involve 	5-6
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 	3-4
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. 	1-2
A02	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 	13-15
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 	10-12
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 	7-9
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 	4-6
Level 1	<ul style="list-style-type: none"> demonstrate poor interpretation and analysis of issues, problems and evaluation recognise arguments and conclusion. 	1-3

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 	13-15
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 	10-12
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 	7-9
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 	4-6
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. 	1-3
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 	9-10
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 facility 	7-8
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 	5-6
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 	3-4
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

Answer **both** questions

Assessment objectives balance

Question	AO1	AO2	AO3	AO4	Total
Number 1	10	15	15	10	50

- 1 Using the source material and your own knowledge and experience, consider the extent to which true sporting spirit can survive developments in culture, science and society. [50]**

General Comment:

The passage comments on a number of issues which have occurred within sport and demonstrate its changing nature. There are occasions when competitors both play to the best of their ability and acknowledge each other's strengths. Equally some will resort to less honest means of achieving success, perhaps by cheating or by using performance enhancement. Chambers was subsequently unsuccessful in his quest to run in the Games. Vipa Bernhardt's issues relate to a notion of 'rights' rather than sporting contest and 'fair play'. The French plan relates to economic issues within sport.

Connections

There are opportunities to connect with all three domains, either through personal experience or knowledge. 2010 is a World Cup year and also a Winter Olympics year. It is probable that a number of issues relating to performance enhancement may well have been in the news since 2008, and of course the build up to the London Games may well offer news items as well as the Tour de France. In addition there will be connection to financial links relating to the 'credit crunch'.

The five paragraphs of the source explore the following:

1. skier receives help from opponents team (group sporting spirit)
2. competitors share the uplifting moments (individual sporting spirit)
3. litigation to overturn governing body ruling (social domain threat)
4. rich people buying sporting success as business at any cost (social domain threat)

True sporting spirit includes:

- playing to the rules
- respect for opponents
- no use of performance enhancing drugs
- responsible role models
- compete but have fun
- respect for the provenance of the sport
- actions to foster good relationship nationally and internationally
- pleasure in engagement and personal best achievement.

Threats to survival include:

Cultural

- whether to cheat, matters of conscience
- couch potato lifestyle
- media images of role models
- sub-culture of the supporters eg barmy army, football teams and incidents of racism
- international rivalry and nationalism
- faking fouls, appeals for catches not made, repeated appeals
- belief in 'win at any cost'
- national anthems, flags and medal tables
- materialism and sales needing results
- international betting, bribes and bungs.

Science

- performance enhancing drugs
- equipment eg balls, racquets, swimsuits, cycles, blades
- TV replays to challenge umpires, 'hawkeye' in tennis
- drugs to suppress body growth and function
- medical assistance to repair participants.

Social

- role of money, sponsorship
- teams as businesses, ownership
- commercialisation eg team shirts for supporters, beer and darts
- agents and fees, player loyalty, manager contracts
- clashes over hunting, shooting and fishing
- violence following events eg policing
- government investment in sport.

Consider the extent to which true sporting spirit can survive developments in culture, science and society

There is a consideration of contest with opponent and with self. The idea of personal performance and its relationship with previous or past performance suggests that victory is less important than performance. A performance which is the best an individual has given ought to be considered sufficient whether a contest against another is won or not. The notion of 'winner takes all' detracts from this. The modern situation which sees virtually all successful sportsmen/women as professional in all ways but name suggests that it is important to win and that only winners are successful. This could be considered to mirror some aspects of everyday life.

Those who resort to less 'legal' methods in order to be successful are still shunned by the majority of sportspeople. The 'man in the street' can perhaps maintain a 'true sporting spirit' more easily than those who are deemed professional.

The final conclusion might be that true sporting spirit cannot survive.

Criteria for judgements

- clear identification of responses which consider each of the domains
- appropriate and relevant examples which demonstrate an understanding of 'true sporting spirit'
- clear format, with evidence of communication skills and appropriate language and terminology
- assessment of whether 'true sporting spirit' can survive
- conclusion based on points put forward.

These descriptors are intended as a first guide to examiners. They indicate the characteristics of a top level answer. Marks within a level are awarded when an answer does not include all the parts or qualities shown in the descriptor. Answers which are 'borderline' should be awarded the lowest mark in the level.

Level	Descriptor	Marks
Level 5	In addition to an articulate, cogent and comprehensive answer (AO4) which is supported by a very good range of knowledge (AO1), candidates will examine each domain clearly. They will consider all aspects of the question. They will discuss the ways in which true sporting spirit can be maintained but also show very good awareness of alternative ways in which information can be interpreted. (AO3) There will be a conclusion which will offer an assessment of the extent to which true sporting spirit can survive. (AO2)	41-50
Level 4	Ideas will be communicated in a clear and accurate manner (AO4) which demonstrates a good range of knowledge. (AO1) Candidates will examine each domain clearly. They will consider all aspects of the question. They will show an appreciation of the ways in which information can be interpreted (AO3) and offer a competent assessment of the extent to which true sporting spirit can survive. (AO2)	31-40
Level 3	Ideas will be communicated clearly. (AO4) Candidates will show an adequate understanding of the concepts involved (AO1) and will examine each domain. They will show an awareness of the ways in which information can be interpreted. (AO3) There will be some analysis of the extent to which true sporting spirit can survive and some conclusions will be drawn. (AO2)	21-30
Level 2	Candidates will produce a response which lacks clarity (AO4), and demonstrates a limited range of knowledge. (AO1) They will consider two or three domains but demonstrate a limited appreciation of the ways this knowledge can be interpreted. (AO3) There will be limited analysis of information offered and limited conclusions will be drawn. (AO2)	11-20
Level 1	These candidates will demonstrate a restricted understanding of the threat to sporting spirit from the developments in culture, science and society (AO1). Their interpretation of the threat will be poor (AO2) with a very restricted appreciation of the extent of the challenge (AO3). They will communicate with little clarity (AO4).	0-10
Suggested annotation	Intro. for introduction SS for points about sporting spirit Cu- ... for cultural development that threaten SS Cu+... for cultural development that maintains/improves Sc -... for scientific development that threaten SS Sc +... for scientific development that maintains/improves So -... for social developments that threaten SS So +... for social developments that maintains/improves Dev for development Eg for examples Conc. for conclusion.	

Question 2

Assessment objectives balance

Question	AO1	AO2	AO3	AO4	Total
Number 2	10	15	15	10	50

- 2 Consider to what extent people can successfully take cultural, scientific and social action to repair the damage mankind has done to life on earth. [50]

The question has three parts;

- information on the damage mankind has done to life on 'Earth'
- suggested actions to repair the damage
- assessment of the chances of the actions being successful.

General Comment:

Candidates will probably identify examples largely from the scientific domain (atom bomb, climate change, increased travel by air, mass food production, for example) but might also consider examples from the other domains such as population increase, or building programmes which make use of green belt land. Some more able candidates may consider a more philosophic view and discuss wars, and relationships between societies as methods by which damage to the Earth has occurred.

The key elements are the identification of measures from each domain to repair the damage, and the 'stretch and challenge' is to consider extent to which people can act to repair the damage.

Connections:

There are a number of links to domains either through personal experience or as a result of knowledge gained through current studies or from GCSE courses. Issues relating to climate change and environmental warming are regular items in the news. It is possible that a recession might well have highlighted the need to be more frugal and therefore encouraging less waste and improved awareness of issues. The following suggestions are not exhaustive.

Cultural**Damage done to the earth**

- throw-away culture creates issues relating to waste management
- culture of food wastage and areas of the world where poverty and starvation exist
- indifference to situation of other people in other parts of the world
- 'convenience' culture increases potential for waste.

Actions to repair the damage

- growing awareness of need for change through organisations such as Greenpeace, friends of the Earth, World Wildlife Fund
- move away from paper-based towards e-based media reporting
- increase in allotment use and 'grow your own'
- advertisements to encourage awareness.

To what extent

- time taken to 'repair' existing damage might affect success of pressure groups
- greater awareness through pressure groups leads to individual and collective change.

Scientific**Damage done to the earth**

- extraction of minerals and quarrying
- air, land and water pollution from industry and transport
- greenhouse gases and global warming
- aerosols and holes in the Ozone layer
- intensive food production, land degradation, soil erosion
- landfill and waste disposal
- sewage and waste products in the sea.

Actions to repair the damage

- cleaner coal burning power stations
- renewable sources of energy; eg wind, solar
- alternative methods of vehicle propulsion; eg hybrid cars, electrical
- rehabilitation of industrial sites
- energy efficient standards for new buildings
- reduce, recycle and reuse of former waste materials
- promotion of local 'in-season' foods.

To what extent

- tension with human nature
- problems of efficient implementation
- economic growth and employment challenge 'greener' ways
- less developed countries want to emerge
- political control through wealth.

Social**Damage done to the earth**

- use of personal transport in preference to public transport
- increased use of air travel
- increased 'food miles' to satisfy changing eating habits
- increased population
- changing nature of population.

Actions to repair the damage

- improved transport infrastructure
- congestion charges
- changing attitudes of supermarkets through 'bag for life' and decreased packaging
- government encouragement through subsidies for movement to 'greener alternatives'
- legislation to enforce use of 'greener' alternatives, for example within the building industry
- changing nature of economy to accommodate greener' attitudes.

To what extent

- legislation would speed up process of change but might anger individuals
- cost of 'greener alternatives' might affect use.

Consider to what extent people can successfully take cultural, scientific and social action to repair the damage.

Candidates accessing the higher marks will offer a full response to this section. It is entirely permissible for candidates to feel that it is 'too late' to repair the damage. Equally candidates are at liberty to feel that there should be legislation to enforce individuals and groups to act in a more responsible way. More able candidates may well consider the means by which greater responsibility and 'care' may be encouraged and might introduce current examples which could be developed. The more adventurous might well consider methods which as yet are not in the public domain.

Criteria for judgements

- clear identification of responses which consider each of the domains when offering examples to repair the damage
- assessment of the extent to which people can successfully act to repair the damage
- conclusion based on points put forward
- clear format, with evidence of communication skills and appropriate language and terminology.

Level	Descriptor	Marks
Level 5	In addition to an articulate, cogent and comprehensive answer (AO4) which is supported by examples (AO1), candidates will examine each domain clearly. They will consider all aspects of the question. They will show very good awareness of the ways in which information can be interpreted. (AO3) There will be a conclusion which will offer an assessment of the extent to which any damage can be repaired. (AO2)	41-50
Level 4	Ideas will be communicated in a clear and accurate manner (AO4) which demonstrates a range of knowledge. (AO1) Candidates will examine each domain clearly. They will consider all aspects of the question. They will show an appreciation of the ways in which information can be interpreted (AO3) and offer a competent assessment of the extent to which any damage can be repaired (AO2)	31-40
Level 3	Ideas will be communicated clearly. (AO4) Candidates will show an adequate understanding of the concepts involved (AO1) and will examine each domain. They will show an awareness of the ways in which information can be interpreted. (AO3) There will be some analysis of points raised and some conclusions will be drawn. (AO2)	21-30
Level 2	Candidates will produce a response which lacks clarity (AO4), and demonstrates a limited range of knowledge. (AO1) They will consider two or three domains but demonstrate a limited appreciation of the ways this knowledge can be interpreted. (AO3) There will be limited analysis of information offered and limited conclusions will be drawn. (AO2)	11-20
Level 1	These candidates will demonstrate a restricted understanding of the damage to the Earth cause by mankind or of the cultural, scientific and social actions that people could take (AO1). Their interpretation of the damage and possible actions will be poor (AO2) with a very restricted appreciation of the likely success (AO3). They will communicate with little clarity (AO4).	0-10
Suggested annotation	Intro. for introduction D1, D1 for points concerning damage CuAction... for cultural actions to repair damage ScAction... for scientific actions to repair damage SoAction... for social actions to repair damage Ass for assessment of the possible success Dev for development of points Eg for examples Conc. for conclusion.	

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