

**OXFORD CAMBRIDGE AND RSA EXAMINATIONS**

**Advanced GCE**

**CRITICAL THINKING (H450)**

**F494**

UNIT 4: Critical Reasoning

Wednesday

**14 JUNE 2006**

Afternoon

1 hour 45 minutes

Additional materials:

Resource Booklet

Answer Sheet

Answer Booklet

**TIME** 1 hour 45 minutes

**INSTRUCTIONS TO CANDIDATES**

- Write your name, Centre number and candidate number in the spaces on the answer booklet and answer sheet.
- You must answer **all** questions.
- Section A contains multiple-choice questions which you should answer on the answer sheet provided.
- Read each question carefully and make sure that you know what you have to do before starting your answer.

**INFORMATION FOR CANDIDATES**

- The number of marks is given in brackets [ ] at the end of each question or part question.
- You should spend no more than 40 minutes answering Section A.
- You will be awarded marks for the quality of your written communication in Section B.
- The total number of marks for this paper is 110.

---

**This question paper consists of 14 printed pages and 2 blank pages.**

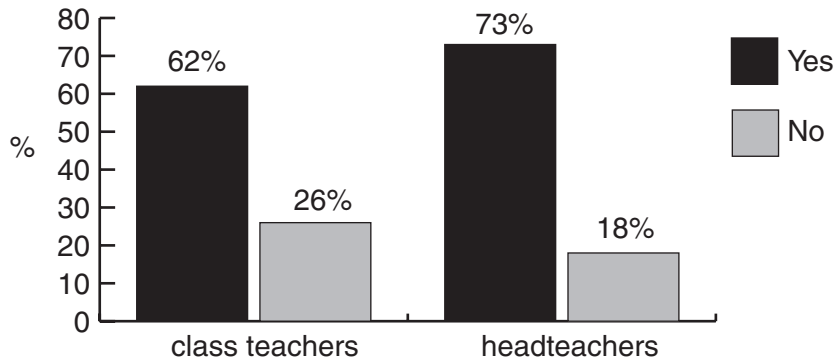
**Section A: Multiple Choice**

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

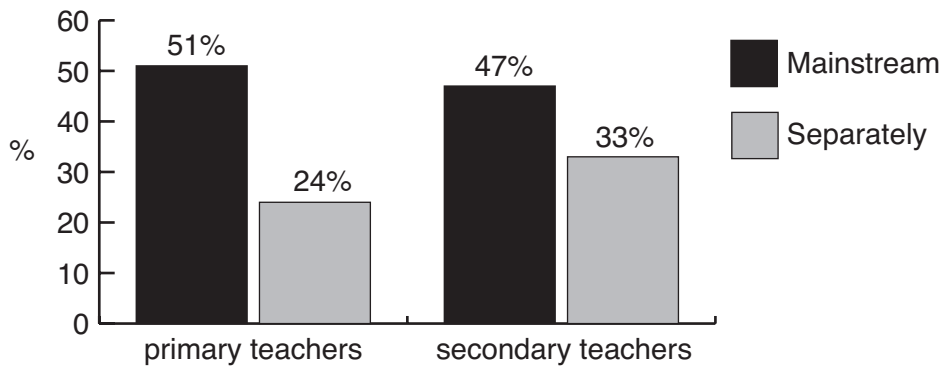
You are advised to spend no more than 40 minutes on this section of the paper.

The four graphs below show the results of a survey.

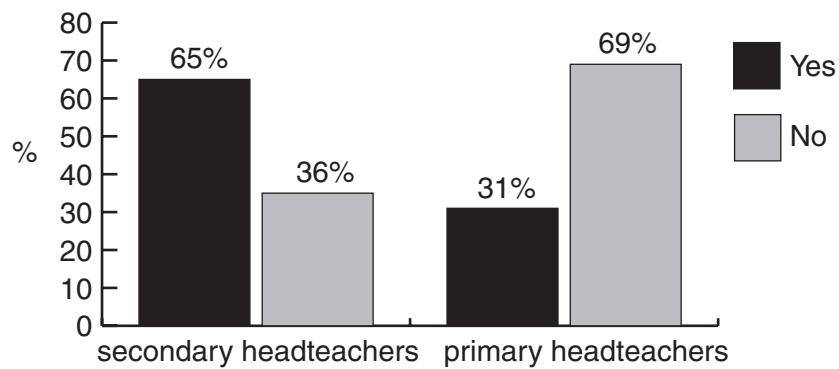
Should most children with special educational needs (SEN) be taught in mainstream schools?



Should children with autistic spectrum disorders be taught in mainstream or in separate classes?



Are there children in your school who you feel should be in a special school?



- 1 Which of the following is a **conclusion** which can be safely drawn from the above evidence?
- A Secondary headteachers think pupils with special needs should be taught in other people's schools but not their own.
  - B Primary headteachers are remote from their classrooms and do not understand the effect of disruptive pupils on other children.
  - C Even headteachers who think most children should be educated in mainstream schools may believe that some children are better off in special schools.
  - D A belief in inclusive mainstream education is inconsistent with a belief that some children are better off in special schools.

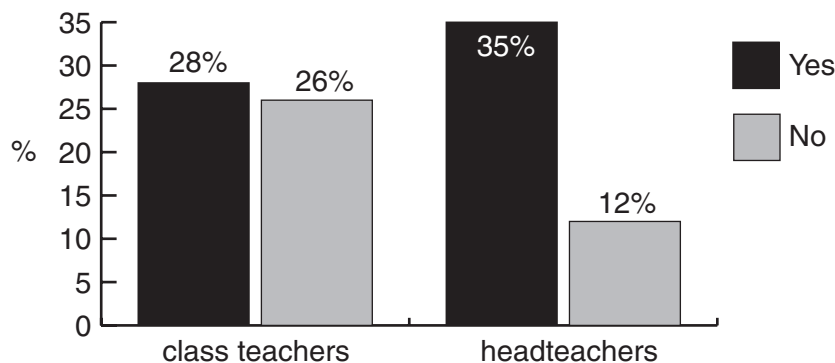
[1]

- 2 In the light of the above evidence, which of the following might **best explain** why secondary headteachers are more likely than primary headteachers to think there are pupils in their schools who should be in a special school?
- A Secondary teachers are much less tolerant of pupils with SEN than their colleagues in primary schools.
  - B Most children with SEN transfer to special schools between primary and secondary.
  - C Children with SEN are better able to cope in primary than secondary education.
  - D Children with mental disorders are much more likely to be absent from school than others.

[1]

3

Are children with SEN more likely to achieve their learning potential in a mainstream school?



Does this information

- A contradict previous evidence?
- B explain previous evidence?
- C have no relevance to previous evidence?
- D appear inconsistent with previous evidence?

[1]

[Turn over

- 4 It has long been common practice for anglers to release small fish and prize the largest. However, this may need to change as the biggest fish are crucial for saving fish populations. The biggest fish are more fertile, producing 200 times as many eggs as small fish. Furthermore, the offspring of large fish grow faster and to a greater size than the offspring of small fish. Taking the largest individuals also appears to give an evolutionary advantage to smaller individuals.

What function does the following element have in the structure of the argument?

*“...the biggest fish are crucial for saving fish populations.”*

- A Reason.
- B Intermediate conclusion.
- C Main conclusion.
- D Counter-argument.

[1]

- 5 Which of the following, if true, would effectively **counter** the argument in the passage in question 4?
- A The best way to prevent over-fishing is to set up protected marine areas.
  - B Over-fishing is by far the biggest danger to species at risk.
  - C Anglers will not want to take the smaller fish.
  - D If anglers take the smaller fish they will not grow into big fish.

[1]

6

% of total UK complaints about faulty handsets	
Juicy	52
Coffee Mobile	34
Ozz	10
Super P	4

Petra concludes that Super P sell the most reliable handsets. Which of the following would she need to verify in order to support her judgement?

- A The percentage of market share held by each company.
- B The range of handsets available from each company.
- C The breakdown of types of handset faults.
- D The total profit made by each company.

[1]

- 7 It has been proposed that, instead of mentioning a 'small chance of rain', weather presenters should say that, 'it will be mostly dry'. 'Chilly in places' will be replaced with, 'warm for most'. If isolated thunderstorms are on the way, we might simply be told that it will be 'hot and sunny for most'. This is idiotic. We need bad weather warnings in order to prepare vegetable plots for unseasonable frost, or batten down the hatches before a storm. Putting a spin on the weather will be as sensible as saying that your attempt at DIY was mostly successful because you still have seven fingers left.

Which of the following best expresses the main conclusion of the above argument?

- A Selective weather forecasting is equivalent to telling lies.
- B Weather presenters are to concentrate on reporting good weather.
- C A policy of putting positive spin on the weather forecast is misguided.
- D Warnings of bad weather allow people to prepare for it.

[1]

- 8 Refer to the passage in question 7.

Which of the following makes this an effective analogy?

- A It shows how amusing it would be to always put a positive spin on the weather.
- B It shows the absurdity of always putting a positive spin on the weather.
- C It draws an obvious parallel between DIY and the weather.
- D It emphasises the unlikely risks associated with putting a positive spin on the weather.

[1]

[Turn over

- 9 Work is considerably better for you than watching daytime television. According to one politician, going back to work will cure stress and depression much faster than staying at home watching TV. An American study has shown that those in employment can expect to live 14 years longer than those not in employment. British research found that, even after taking weight and smoking into account, unemployed men in their forties are twice as likely to die as their working counterparts.

Which of the following is the best expression of a flaw in the above argument?

- A It relies on an American study to support evidence about British workers.
- B Daytime television is falsely considered to be the cause of depression.
- C “Twice as likely to die” is taken out of context.
- D It does not consider that people may not be working because of their poor health.

[1]

- 10 An argument presents reasons for accepting that such-and-such is or should be the case.

In this sense it differs from an explanation which simply states why such-and-such is the case. Under this definition, which **one** of the following is an **argument**?

- A There is no good reason to put people on the moon. Plans to send a manned mission to Mars will cost billions at the expense of people on earth. Plans to send people back into space have been criticised as a rerun of the Apollo programme.
- B Providing contraception for 4000 female elephants is not practical. Transporting elephants to Mozambique would be prohibitively expensive. South Africa will have to control the rapid growth of its elephant population by culling.
- C Beauty queens have gathered at a conference in Thailand to tell girls not to risk their health by dieting. They should not leave calcium rich drinks out of their diet and should avoid obsessive dieting. They should exercise moderately but not excessively. It would be better if these beauty queens practised what they preached.
- D The universe is expanding, pulling galaxies apart as the space between them stretches. Atoms are not stretched by the expansion of the universe. Atoms are bound together by a strong electromagnetic force whereas clusters of galaxies are loosely bound by gravity.

[1]

- 11** Evidence indicates that children whose parents spend time with them are less likely to develop behavioural difficulties. It is clear that mothers should not go to work while their children are small.

Which of the following is NOT assumed by the above argument?

- A** If mothers who work stayed at home they would spend time with their children.
- B** Fathers who stayed at home would not have the same beneficial effects as mothers.
- C** The roots of behavioural difficulties lie in early childhood.
- D** Behavioural difficulties can be avoided by good parenting.

[1]

- 12** Biological differences, such as the way people's eyes move, underlie some cultural differences. Chinese and American people literally see the world differently. Researchers have found that American students spend longer looking at the central object in a photograph, while Chinese students' eyes tend to dart around, taking in the background. A similar difference is also noticeable in language acquisition. East Asian children tend to learn verbs first, linking objects, whereas Western children learn nouns first, taking objects in isolation. It may be that Western cultures are more materialistic than Eastern cultures because characteristic Western eye movements lead them to focus on objects.

Which of the following best expresses the main conclusion in the above argument?

- A** Concentrating on things rather than background may be why Western cultures are more materialistic than Eastern.
- B** East Asian and Western people have different visual impressions of the world.
- C** There are differences in the way American and East Asian children learn language.
- D** Some cultural differences have a basis in biology.

[1]

- 13** Which of the following is an underlying assumption of the argument in question 12?

- A** Visual and linguistic differences are not the result of culture and upbringing, such as the way parents interact with children.
- B** Western cultures are more focussed on material goods than Eastern cultures.
- C** Differences in visual and linguistic perception of the world result from cultural experiences rather than fundamental biological differences.
- D** Differences in visual and linguistic perception are the result of cultural difference rather than the cause of different cultures.

[1]

[Turn over

- 14** The Home Office should return a painting it has bought from a convicted criminal for £375, because he is a violent criminal. The Home Office has spent more than £1million on art for its new building. The artist, whose painting depicts an eccentric with his hoard of junk, is currently serving five life sentences. He also escaped from prison in 1995 using welding equipment he had been given for artwork. The Government cannot be seen to tolerate his activities.

Which of the following is a principle that could be used to **further support** the above argument?

- A** Prisoners should be able to develop skills which will aid their reintegration into society.
- B** Prisoners should not have access to equipment which might aid their escape.
- C** Prisoners who have committed serious offences should not receive money from the Government.
- D** Prisoners should not be allowed to profit from creative work linked to their crimes.

[1]

- 15** Which of the following, if true, would most weaken the argument in the passage in question 14?

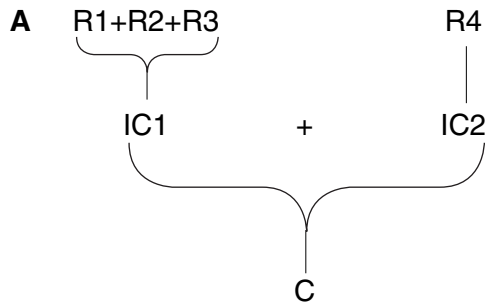
- A** The Government bought the painting in ignorance of the identity of its artist.
- B** Buying a painting does not imply condoning the artist's behaviour.
- C** The £1m spent on art for the new Home Office building would have been better spent improving conditions in prisons.
- D** A desire for revenge on people who have committed offences is counter productive.

[1]



- 16 My nose is bunged up, my head feels like a balloon and my legs feel like lead. I've probably got a cold. I have to prepare for an interview today, so I shouldn't spend the morning in bed. I'd better take some painkillers instead.

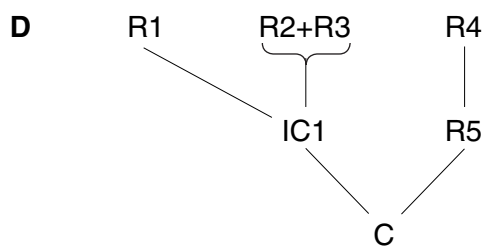
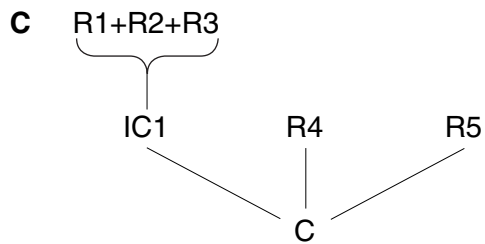
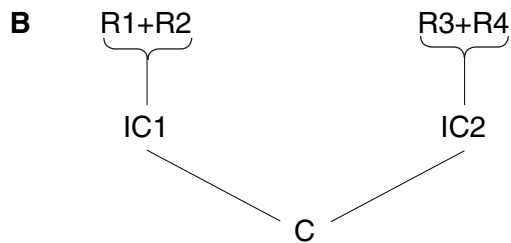
Which of the following represents the structure of the above argument?



R = reason

IC = intermediate conclusion

C = conclusion



[1]

[Turn over

- 17** We should be consistent in our approach to language change. If it annoys us when people confuse less and fewer (as in ‘There will be less people’, instead of ‘there will be fewer people’), we should be similarly annoyed by the use of ‘themselves’ instead of ‘himself’. The principle is the same – we should not confuse singular and plural grammatical elements. So we should accept, ‘whoever made this mess should clear it up himself’, and reject the current version, ‘whoever made this mess should tidy it up themselves’.

Which of the following best expresses the problem with the parallel between linguistic changes in the argument?

- A** ‘Less people’ is always wrong, whereas themselves may sometimes be grammatically acceptable.
- B** ‘Themselves’ is grammatically annoying, whereas ‘less people’ may be offensive in non-grammatical ways.
- C** ‘Fewer people’ is merely pedantic, whereas ‘himself’ may be offensive in non-grammatical ways.
- D** ‘Fewer people’ is annoyingly pedantic, whereas ‘themselves’ can be upsetting in other ways.

[1]

- 18** Sir,

The government has repeatedly attempted to justify the introduction of legislation which infringes civil liberties on the basis that the police support these measures. The government must act to protect citizens from terrorists. It must also, in a democratic country, protect the population from the excesses of a police state. Ministers may maintain that they are responding to the opinion of the professional group which is responsible for our security. Yet they would not automatically accept teachers’ wishes when introducing new measures in education. Legislation which confuses police interest and public interest is a dangerous thing and should be opposed.

Letter to (a Preston) local newspaper

What is the force of the reference to teachers in the above argument?

- A** It suggests that education legislation confuses teacher interest and public interest.
- B** It suggests that professional opinion is not a sufficient reason to introduce legislation.
- C** It suggests that education is less important than national security.
- D** It suggests that public interest is necessary to the introduction of legislation.

[1]

- 19** Almost all of us have fantasised about rising above congestion on a jetpack and floating through empty skies to our destination. There are, however, too many problems in real life. The rocketbelt used at the opening of the 1984 Olympics had a maximum flight time of 25 seconds, even with full tanks. A man from Sussex nearly died in an accident during testing his own rocketpack. Furthermore, a large section of the M25 was closed when a lorry delivering hydrogen peroxide for rocketpacks burst into flames. This combination of danger and limited flight time means that jetpacks are only ever going to be the plaything of the few.

Which of the following best expresses the main conclusion of the above argument?

- A** Jetpacks are simply too unsafe and impractical.
- B** Jetpacks will remain purely in the realm of fantasy.
- C** Jetpacks are just big boys' toys.
- D** Jetpacks will only be used by a small number of people.

[1]

- 20** 'That's like people in the 1950s who thought that only a few people would ever own a personal computer.'

How does this analogy highlight a flaw in the original argument in question 19?

- A** It shows how technology can change over time to make things cheaper and available to more people.
- B** It suggests that technology can change over time to overcome difficulties which prevent mass consumption of an item.
- C** It assumes that changes in technology over time will make the jetpack available to everyone.
- D** It assumes that what is true of computers will also be true of jetpacks.

[1]

[Turn over

**Section B: Analysing and evaluating argument**

Read the article, "In Sympathy with Strikers", and answer questions 21 to 27.

- 21** The subheading, 'Given the unscrupulous practices of big business today, secondary action should be legal', may be taken as an expression of Hattersley's main conclusion. How is this conclusion worded in the passage? [2]
- 22** Name and briefly explain the function of the following elements in the structure of Hattersley's argument:
- (a) 'Most days the striking miners did nothing more intimidating than shout in Yorkshire accents.' (Paragraph 3) [2]
- (b) 'The case in point is Gate Gourmet – an industrial scandal yet to be resolved.' (Paragraph 5) [2]
- (c) 'Secondary action is more than necessary. It is right.' (Paragraph 9) [2]
- 23** Analyse in detail the structure of the reasoning in paragraph 8. [9]
- 24** How effective is Hattersley's response to hostility to secondary action referred to in paragraphs 1–3? [9]
- 25** Evaluate the support given to the main conclusion by the reasoning in paragraphs 4–9.  
Support your evaluation by selectively referring to:
- How effectively examples are used.
  - Any flaws in the reasoning and how far they weaken the overall support for the conclusion.
  - How effectively reasons support the conclusion.
- [12]

26 Gate Gourmet's response included the following:

It was the wildcat strikers who were unscrupulous and uncaring.

... What we call unscrupulous: employees who feel they can walk off the job with impunity whenever they like – as they have done at Heathrow in seven wildcat stoppages in the past three years; local union leaders who encourage unballoted, illegal strikes [...]. Our desire to protect the jobs of 1,400 local employees, maintain operations for our customers and serve – not disrupt – the travelling public, is not unscrupulous. Submitting to the unreasonable demands of an uncompromising, uncaring minority of union militant workers would be.

How effectively does this response counter Hattersley's argument?

[9]

27 Hattersley says in paragraph 3, 'Sometimes the right to argue has to be extended to the right to act'.

Write your own argument to support or challenge this claim.

[18]

**Total marks for Section B [65] marks**

14  
BLANK PAGE

15  
BLANK PAGE

---

Permission to reproduce items where third-party owned material protected by copyright is included has been sought and cleared where possible. Every reasonable effort has been made by the publisher (OCR) to trace copyright holders, but if any items requiring clearance have unwittingly been included, the publisher will be pleased to make amends at the earliest possible opportunity.

OCR is part of the Cambridge Assessment Group. Cambridge Assessment is the brand name of University of Cambridge Local Examinations Syndicate (UCLES), which is itself a department of the University of Cambridge.