MARK SCHEME for the May/June 2012 question paper

for the guidance of teachers

9694 THINKING SKILLS

9694/41   Paper 4 (Applied Reasoning), maximum raw mark 50

UNIVERSITY *of* CAMBRIDGE
International Examinations

1 (a) Suggest three criticisms of the data used in the advertisement and/or their presentation in the bar chart. **[3]**

Award 1 mark for each distinct, relevantly identified point. For example:

- Misleading diagram – the scale on the vertical axis has been selected to maximise the relative success of Chase.
- Inadequate sampling. It is likely that there are more than 4 truck companies on the market, yet only four are compared.
- Possible dissimilarity of data sets – the term 'truck' may be used differently by each company.
- Selective choice of 10-year time period. A 20- or 30-year comparison may be very different.
- The time period seems too short – one would expect almost all trucks to be still functioning after a decade.
- The raw data from Chase may have been composed more selectively than that from the rival companies; the data have been presented by Chase and not some independent source.
- Imprecise information – 'last 10 years' – it is unclear how many cars of each make were sold each year. If most of the Chases on the road were bought only two years ago, whereas most of Dinkys were bought 9 years ago, Dinky would appear to be the more reliable.
- The customer comments both come from the same source, despite the claim that they are the views of "customers".

(b) 'Chase – the most reliable, longest-lasting trucks. Solid as a rock!'

How reasonably can this claim be inferred from the information given in the advertisement? Briefly explain your answer. **[2]**

Award 1 mark for a weak response and 2 marks for a well-developed, accurate response that clearly links the information to the claim about Chase.

For example:

- The claim that Chase make the most reliable, longest-lasting trucks is not supported by any evidence other than the percentage comparison presented in the bar chart. This 10-year statistic is not appropriate for the 'longest-lasting' claim – the average age of a truck would be a better statistic for the purpose.
- Some trucks may be more reliable than Chase, but not have comparable service and repair provision. Chase may have less reliable trucks, but a good network of mechanics, cheaper parts, or be easier to fix.
- Unspecified research about Chase coming top in terms of recognition and 'prizeness' is not at all relevant to a conclusion about reliability.
- The customer comments have no relevance whatsoever to reliability or longevity.
- 'Solid as a rock!' is an inaccurate analogy – the differences between Chase trucks and rocks outweigh the similarities.
- Selective use of information plus customer comments is likely to be biased in favour of Chase trucks.

2   **Briefly analyse Thomas Hazlett's argument in Document 1: *Slipping Rank*, by identifying its main conclusion and main reasons, as well as any intermediate conclusions and counter-arguments.** **[6]**

(M)R – We should be believing that our children are all above average world achievers (but instead we believe that we are lagging behind).
R – Often the proffered ranking is a spurious correlation.
IC – These statistical snapshots are not helpful.

CA – without universal high-speed access to the Internet, American children would not receive the quality education they deserve.
MR – The "we're falling behind" hysteria should really have been seen as ludicrous.

R – By using subscriptions per 100 households … the ranking has been shown to alter significantly.
IC – The OECD ranking of the US is flawed.

R – This kind of global-ranking panic, even when false, can be very effective.
IC – Making out that America is in a desperate international position has always been a useful rhetorical weapon for those who seek political advantage.

R – Money could be used to improve programs with much higher social value.
IC – There is little justification for throwing public money after a higher broadband penetration rate.

MC – Americans need to stop finding such race-to-the-bottom arguments (in order to claim that their country is sinking fast).

Marks
1 mark for each emboldened element (maximum 3 if MC not identified).
If no elements identified, credit 1 mark for gist.

3 Give a critical evaluation of Hazlett's argument in Document 1: *Slipping Rank*, by identifying and explaining strengths, weaknesses, implicit assumptions and flaws. **[9]**

Para 1

"isn't this what the English say..."
– Irrelevant appeal.

"We should be believing that our children are all above average world achievers"
– (*A priori*) unsupported premise, upon which the argument depends heavily.

Para 2

Some use of rhetorical language (e.g. "hysteria", "ludicrous").

"Crisis that did not exist" – an overstatement, since if the OECD statistics were correct some Americans would see it as a crisis.

Obama's words have been truncated and may have been taken out of context to suit Hazlitt's argument.

Para 3

Having dismissed the usefulness of "statistical snapshots", he then puts forward one of his own, which is inconsistent/contradictory.

Inconsistency - Having criticized the use of only one statistical ranking, he then does the same to justify his position about US being joint first.

This new ranking has been created from a selective sample, and with a measure that is biased towards supporting the author's own conclusion.

The FCC is not an independent authority on American affairs or is an American Institution.

Assumption that the FCC have used the 'per household' measure described.

Assumption that there are no other possible explanations, other than that the ranking system is flawed, for why America is ranked 15th.

Para 4

The comparison could be seen as a *strength*, in that both Obama and Kennedy used unflattering comparisons with other nations in order to win support.

On the other hand, the comparison may be viewed as *flawed* since the two fields of reference (broadband and the Cold War) are very different in nature. Also, Obama is not explicitly denigrating an opponent, whereas Kennedy is.

Para 5

Begging the question by asserting that reducing infant mortality is of higher social value than increasing broadband provision.

Assumption that America should always be the leading country.

Assumption that America is not in actual fact "sinking fast".

Overall Evaluation

The argument is, overall, very weak – the reasons have many flaws and barely support the main conclusion that America ought to stop finding such race-to-bottom arguments. Almost the whole argument is based around the claim that the single OECD statistic is flawed. The conclusion is somewhat removed from the reasoning, and derives from an assumption that the US is entitled to be the global leader rather than from the reasons stated.

Marks
For each sound evaluative point 1 mark and 2 marks for a developed point, to a maximum of 8 marks.
Up to 2 marks for an overall judgement on the argument.

[max 9 marks]

4 'The US must lead the world in innovation, if it is to keep its place as the world's biggest economy'.

To what extent do you agree with this statement? Construct a well-reasoned argument in support of your view, commenting critically on some or all of Documents 1 to 4, and introducing ideas of your own. **[30]**

Band	Overall	Within	Score
Band IV	Considers counter-positions to own argument and reflects on implications in arriving at conclusion.	Developed consideration of counter-positions. Knows precisely what complexities face own argument.	27–30
		Limited development of 1 or 2 counter-positions to own argument.	
Band III	Well-reasoned, coherent argument, which should include evaluation of sources, integration of viewpoints, further argument and simple consideration of counter-arguments (or conflicting sources). Must reference 3+ documents.	Introduces further relevant lines of argument building their own position, with supporting examples. Outlines some complexities. Combines different viewpoints, or synthesizes arguments from different documents, using own ideas or critical comments or fresh perspectives.	22–26
		Forges a chain of reasoning through examining multiple sources. Compares and contrasts documents relevantly. Good interpretation of sources. Applies precise critical comments/evaluation to a source.	17–21
Band II	A reasoned stance: a clear conclusion, supported by reasons clearly expressed but uncritically selected from the sources. Implicit or explicit reference to document/s.	Some independent reasoning / implicit critical comments. Clear statement of 3 or 4 reasons in support.	12–16
		Reasons indiscriminately selected. Little clear independent or no independent reasoning. Some irrelevance / deviation from the question. May be multiple conclusions with little support for each one. Too brief a response, even if accurate.	7–11
Band I	'Pub rhetoric': unclear or no conclusion; reasoning that goes off question target at a tangent; substantial irrelevant material. Completely misunderstands or no understanding of question.	Reproduced reasoning from Q2 and Q3. Disorganised. Unconvincing attempts to construct reasoning.	2–6
		Stream of consciousness. Wholly irrelevant/deviant/incoherent material. No attempt.	0–1

Indicative content

Credit will be given for the judicious use of resources in the documents. Candidates need to refer to stimulus documents relevantly, availing of the material therein to support or challenge their case. e.g. a case made positively for the conclusion can draw on documents 2 and 4, while showing awareness of the nonchalant stance expressed in document 1.

Credit will be given for critical reasoning through the assessment and interpretation of evidence. e.g. it might be pointed out that though there is a general perception worldwide that the US is on the backfoot now, as document 2 suggests, there are other explanations in document 4 that indicate that the US cannot be simply by-passed; or that show that the US attainment caps the world economic growth.

Credit will be given for critical analysis and evaluation of stimulus sources. e.g. it might be pointed out that the opinion poll in document 3 shows, on the whole, that the US is making less impact in the world and therefore slipping in rank, thus corroborating claims in other sources; or that this opinion poll is or is not representative of the whole world; or that the US itself is beginning to lose its self-assuredness and what the implications of this are.

Credit will be given for the inferences candidates draw from the sources, synthesis of arguments from different sources and for other examples of observations they bring to the debate. e.g. that the Internet has shifted economic growth in favour not of those countries with traditionally the best infrastructure or resources, but of those countries with the best development of computer technology and know-how, as shown in document 2, and to a certain extent by document 1; or show with further examples that the growth of India and China and such upcoming economies is reliant on developments in the US; or give examples to illustrate that there are other priority reasons than losing the lead in innovation that can displace the US ranking, e.g. lack of peace and stability within and without its borders.

To obtain higher bands, candidates should consider counter-arguments and objections to their own position, and some response to these. Anecdotes from personal experience should not dominate the discussion to the exclusion of other considerations raised by the stimulus sources, they should be weighed in the balance properly.

No marks are reserved for the quality of written English or specialist knowledge of the subject matter/s in the stimulus material. It is the quality of critical thinking and reasoning alone which is under assessment, and provided the candidate has made his or her thought processes sufficiently clear to be understood, full credit will be given.