Philosophy & Reason
2014 Senior External Examination: Assessment report

Statistics

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General comments

On the whole, candidates achieved best in questions assessing Deductive Logic, with responses to Critical Reasoning and Philosophy being significantly weaker for the majority of candidates.

Paper One

Responses to Paper One Part A (Propositional Logic) were generally better than those to Part B (Monadic and Dyadic Logic). It was particularly pleasing that candidates were well prepared to use truth tables to analyse both formulas and arguments, following the advice in last year’s assessment report.

Translating and symbolising was generally satisfactory. A small number of candidates produced symbolisations that were not only incorrect, but were not even well-formed formulas, which is of concern.

A number of candidates made the same error in responses to Part A Question 15 with the truth tree rule for ~(P&Q). The tree should branch, with ~P and ~Q appearing on the respective branches.

Responses to Part A Question 17 were disappointing, reflecting little understanding of the terms ‘necessary’, ‘antecedent’ and ‘consequent’.

It was disappointing that very few candidates made a meaningful attempt at Part B Question 13. This was a fairly straightforward argument, and its validity should have been apparent on reading through it.
As written in last year’s assessment report, it is recommended that candidates aim to develop an understanding of concepts (as required by the knowledge criterion) as well as procedures. This will better equip them to apply appropriate techniques to complex tasks (as is required by the A and B descriptors in the Application criterion).

This advice is also relevant to Part C Question 2, where very few candidates were able to recognise that statement (a) was more probable than statement (b), simply by virtue of the fact that statement (b) contained two propositions whereas statement (a) only contained one.

**Paper Two**

**Part A**

Question 1a directed candidates to justify their response with reference to the structure of the argument. Even candidates who correctly identified the argument as an inductive analogy did not tend to justify their responses appropriately.

This lack of awareness of argument structure was also apparent in responses to Question 2, where the majority of candidates simply quoted from the text of the cartoon without any attempt to formalise the argument. It was also evident in Question 3, where the text of the letter was rewritten rather than analysed.

Comments printed in the 2012 and 2013 assessment reports also apply in 2014: Responses tended to contain sweeping statements about ‘bad reasoning’ and did not reflect an understanding of the nature of the faulty reasoning — be it the structure of the argument itself or the assumptions made within the argument. A and B standard responses articulate where the fault in the reasoning lies and explain why such reasoning is weak.

**Part B**

Surprisingly, many candidates’ responses to the unseen Philosophy question were of higher quality than their responses to the prepared topics. It is strongly recommended that candidates take the opportunity to undertake a thorough drafting process so that their prepared essays are polished. Attention should be paid to the A standard syllabus descriptors, particularly in the application and communication criteria.

The prepared essay is the candidate’s best opportunity to demonstrate their ability to ‘outline, analyse and evaluate philosophical theories by explaining simple and complex relationships between theories, and discerning and describing the application of theories in different contexts (including in the formulation of their own and others’ views)’. It also represents an opportunity for candidates to meet the A standard in the communication criterion in a piece of extended writing. Candidates should ensure that they have a clearly developed thesis, and that their essay is well-structured and coherent.

**Sample solutions**

The following solutions are not necessarily prescriptive model responses and are not the only way of solving a problem. Other approaches and problem-solving strategies may be just as acceptable.
**Paper One**

**Part A**

| Q1 | A |
| Q2 | C |
| Q3 | B |
| Q4 | A |
| Q5 | C |
| Q6 | D |

Q7 If either the band plays Colonel Bogey’s March only if the crowd cheers but if the crowd cheers then the drummers don’t keep the beat, or the euphonium is too loud, then the parade is not a great success.

Q8 The parade is not a great success, if and only if either the drummers don’t keep the beat and the euphonium is too loud, or the weather is not fine (but not both).

Q9 \(\sim G \supset (\sim B \lor (B\&\sim D))\)

Q10 \((B\&C\&E) \supset G\)

Q11 C (≡). The response should explain why tribar is the only choice consistent with given values.

Q12

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<th>Q</th>
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<th>~ (\sim (P &amp; Q) &amp; (\sim P \supset Q))</th>
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Q13 Invalid

Counterexample P1 Q1 R0

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<th>P</th>
<th>E</th>
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<th>P</th>
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Q14  i. subcontrary  
ii. contrary  
iii. indifferent  
iv. e implies a  
v. contradictory

Q15  Contingency

1. \((P \& Q) \neq P \lor Q\)  
2. \(\sim (P \& Q) \neq \sim P \lor Q\)
   \[\uparrow\]  Not a contradiction.

1. \(\sim ((P \& Q) \neq \sim P \lor Q)\)  
2. \((P \& Q) \neq \sim P \lor Q\)
3. \((P \& Q) \neq P \lor Q\)
4. \(\sim P \lor Q\)
5. \(\sim P \neq Q\)  
6. \(\sim P \neq \sim Q\)

\[\uparrow\]  Not a tautology

\[\therefore\]  Contingency.
Q16.

1. \( P \equiv (Q \lor R) \)  

2. \( P \rightarrow (Q \lor R) \)  

3. \( \neg (R \equiv (P \lor Q)) \)  

4. \( \neg P \quad \neg Q \equiv R \)  

5. \( \neg Q \quad \neg R \)  

6. \( P \quad \neg P \quad P \rightarrow P \quad P \rightarrow \neg P \)  

7. \( (Q \lor R) \rightarrow (Q \lor Q) \rightarrow (Q \lor Q) \rightarrow (Q \lor Q) \rightarrow (Q \lor Q) \)  

8. \( X \quad \neg Q \quad \neg Q \quad \neg Q \quad \neg Q \)  

9. \( 4,6 \quad \neg R \quad \neg R \quad \neg R \quad \neg R \)  

10. \( \neg R \quad R \)  

11. \( (P \lor Q) \rightarrow (P \lor Q) \)  

12. \( P \quad Q \)  

Invalid\[c.e.\] \( P \lor Q \lor R \)

Q17 Statement is inaccurate. The response should explain terms ‘necessary’, ‘antecedent’ and ‘consequent’ in this context.
Part B

Q1 B
Q2 D
Q3 C
Q4 C
Q5 D
Q6 B
Q7 Some cats are native animals.
Q8 Charles is a cat that is not feral, and killed a bilby.
Q9 (∃x)((Bx&Nx)&xIa) & (∃y)((Cy&Ny)&yIa)
Q10 (∀x)(Bx⊃(∃y)(Cy & Fy & yKx)) ⊃ ~(∃x)(Bx & xIa)
Q11 The values DO form a counterexample:

~(∀x)((Lx v Mx)⊃Ox)
(∃x)~((Lx v Mx)⊃Ox)
~((La v Ma)⊃Oa) v ~(Lb v Mb)⊃Ob)

0 0 0 0 1 0 1 1 1 1 1 0 0

(∃x)((Ox ≡ Mx)&Rx)
((Oa ≡ Ma)&Ra) v ((Ob ≡ Mb)&Rb)

0 1 0 1 1 1 0 1 1 0 0 1

(∀x)(Rx⊃(Ox≠Lx))
(Ra⊃(Oa≠La)) & (Rb⊃(Ob≠Lb))

1 0 0 0 0 0 1 0 1 0 1
Q13

(∀x)(Ux → (∃y)(My & xSy))
(∀x)(∀y)((Mx & (Uy & ySx)) → (Ex v Lx))

Ua

¬(∃x)(Mx & aSx & Ex)

∴ (∃x)(Mx & aSx & Lx)

All branches close, so argument is valid.
(see next page for tree)
1. \((v_x)(u_x>(\exists y)(M_y & x_y S_y))\)  
2. \((v_x)(u_y)((M_x & (u_y & y_Sx)) \supset (E_x \cup L_x))\)  
3. \(u_a\)  
4. \(\sim(\exists x)((M_x & a_Sx) & E_x)\)  
5. \(\sim(\exists x)((M_x & a_Sx) & L_x)\)  
6. \((v_x)\cap ((M_x & a_Sx) & L_x)\)  
7. \((v_x)\cap ((M_x & a_Sx) & E_x)\)  
8. \(u_a \cap (\exists y)(M_y & a_Sy)\)  
9. \(\sim u_a\)  
10. \((\exists y)(M_y & a_Sy)\)  
11. \(M_b & a_Sb\)  
12. \(M_b\)  
13. \((v_y)((M_b & (v_y & y_Sb)) \supset (E_b \cup L_b))\)  
14. \((M_b & (u_a & a_Sb)) \supset (E_b \cup L_b)\)  
15. \(\sim(M_b & (u_a & a_Sb))\)  
16. \(\sim M_b\)  
17. \(\sim(M_b & a_Sb)\)  
18. \((M_b & a_Sb) \supset L_b\)  
19. \((M_b & a_Sb) \supset E_b\)  
20. \((M_b & a_Sb) \supset \sim L_b\)  
21. \((M_b & a_Sb) \supset \sim E_b\)  
22. \((M_b & a_Sb) \supset E_b\)  
23. \(M_b\)  
24. \(a_Sb\)
Part C

Q1
  i. \( \frac{3}{8} \times \frac{2}{7} = \frac{6}{56} \)
  ii. \( \frac{18}{64} \) (see table below)
  iii. \( \frac{2}{8} \times \frac{2}{8} \times \frac{2}{8} = \frac{1}{64} \)

Q2
  (a) is more likely, as it is a smaller claim.
  \[ P(b) = P(a) \text{ multiplied by } P \text{ (regular library visits)} \]

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Q3
  i. C
  ii. A
  iii. no
  iv. 

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Paper Two

Part A

1a Inductive analogy

1b i. strengthened – increased variety in sample
   ii. weakened – increased claim
   iii. weakened – decreased sample size
   iv. weakened – decreased variety in sample

1c e.g. The family all wore blue snow suits

2i e.g.
   (¬Shirt v ¬Shoes) ⊃ ~service
   ¬(¬Shirt v ¬Shoes)
   ∴ ~service

2ii Affirming antecedent (or something that matches response to i)

3 Many possible responses, e.g.
   • Ad populum/appeal to tradition – ‘have been believed by millions of people for over 2000 years’
   • Limited alternatives – either the Bible is true, or humanity has been made a fool of
   • Appeal to wrong authority – none of Newton, Aristotle and Plato were theologians

4 Response should discuss the difference between ‘all’ v ‘any’, preferably with reference to quantifiers.
Part B

Question 1 (assuming Utilitarianism and Kant)

Intrinsic concepts

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<th>Utilitarianism</th>
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<td>Motives count – act from duty</td>
<td>Consequences count – motives not relevant</td>
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<td>Categorical imperative</td>
<td>Maximise utility – minimise harm</td>
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<td>Treating people as ends/means</td>
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Weaknesses

<table>
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<th>Ignores motives</th>
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<td>Could be seen to over-emphasise individual rights</td>
<td>Could be seen to sacrifice the rights of the minority</td>
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<tr>
<td>May lead to undesirable consequences</td>
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How each theory would judge Robin’s actions

Murdering for personal gain is treating the old lady as a means to an end, not as an end unto herself.

The consequences of Robin’s actions seem prima facie positive. The old woman has lost her life, but it was not a happy one, so this loss may not be seen as much ‘harm’. No harm has been caused to relatives, etc., as there was no-one to mourn her.

The positive consequences are many - the money will be put to good use, and Robin may indeed save millions of lives. One could even say the woman has been put out of her misery, resulting in less unhappiness to herself than had she lived.

Such an action cannot be universalised- if it was always ok to murder in order to steal, society would break down and no-one would ever feel safe. Robin is seeking to make himself an exception to a rule that he would want everyone else to follow.

The long-term consequences of such an act need to be considered. Particularly from the point of view of a rule utilitarian, society may suffer if such an action (killing for profit) is to be regarded as morally acceptable.

Even though Robin’s motive is to pursue an education, he is not acting in accordance with his duty (i.e. the categorical imperative).

Consider whether Robin had a third alternative that resulted in more utility than the killing. Perhaps he could have befriended the woman and asked her to support his educational goals?