Philosophy & Reason
2012 Senior External Examination — Assessment report

Statistics

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of candidates</th>
<th>VHA</th>
<th>HA</th>
<th>SA</th>
<th>LA</th>
<th>VLA</th>
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<td>2012</td>
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<td>3</td>
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General comments

Candidates performed best in Paper One Part A Question 2 (Truth tables) and had the least success in Paper One Part C (Probability).

The unseen Philosophy essay question (Paper Two Part B Question 1) presented a challenge once again this year. Many candidates described only some of the philosophical concepts within the two theories and did not analyse any complex relationships within and between the theories or their application to the real-life issue presented. Many candidates made broad comments about the rightness or wrongness of crimes such as stealing, rather than addressing the ethicality of punishment for the sake of deterrence. A large number of candidates failed to mention Kant’s notion of always treating others as ends unto themselves — one of the most relevant aspects of Kant’s ethics to the issue.

Very few candidates discerned and described the application of philosophical theories in different contexts. In addition, many essay responses lacked details and clarity.

Paper One

The nature of the material covered in Paper One is such that a candidate’s success is determined mainly by the extent of their preparation. Candidates who do not demonstrate an ability to use prescribed techniques and procedures of deductive reasoning and apply them with accuracy are unable to achieve better than a Sound level of achievement. It was encouraging to see a larger proportion of candidates performing well across all deductive logic questions this year.

Many candidates did not choose an appropriate strategy for solving problems of mathematical probability. Candidates are likely to benefit from exploring graphical representations of probability such as tables and trees. For example, Question 10a could have been approached using a table as follows:
The cells of the table that satisfy Question 10a (i) have been indicated and it is a simple matter of counting them to work out that the probability of exactly one of the dice landing on 3 is 10 out of a possible 36 outcomes — 10/36.

Question 10b could have been approached using a tree as follows:

\[
P: \text{jetski} = \frac{1}{3} + \frac{2}{3} \times \frac{1}{8}
\]
Paper Two

Part A — Critical reasoning

Question 1 told candidates that the argument was in the form of an inductive analogy, yet only one response identified the two things being compared.

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 — Philosophy

As was the case in 2010 and 2011, responses in both the unseen and the prepared essays were generally at either A or C standard. The A standard responses contained analyses that included the formulation of candidates and others’ views. The C Standard responses outlined philosophical theories without analysing or evaluating them.

The importance of preparation cannot be overemphasised. Candidates cannot expect to produce a high-quality philosophy essay without spending a significant amount of time researching, reading and drafting.

Sample responses

The following response was selected from those scripts that met the A standard in all criteria in both papers, and was awarded a Very High Achievement. It has been reproduced exactly as written, contains errors, and should therefore not be treated as a “model” response.
Paper One

Question 1

a) (i) My apartment is pet friendly if and only if I own a cat.
\[ P \equiv C \]

(ii) My apartment is not pet friendly and nor do I own a cat.
\[ \neg P \land \neg C \]

(iii) Either I can find a suitable apartment, or my brother can look after my dog, and I do not need to move house.

\[ A \lor (B \land \neg M) \]

(iv) If my brother cannot look after my dog, then if I can find a suitable apartment, I need to move house.

\[ \neg B \rightarrow (A \rightarrow M) \]

(v) Because my apartment is not pet friendly, but I own a cat, I need to move house.

Because \[ \neg P \land \neg C \rightarrow M \]

b) (i) P \lor (C \rightarrow M)

Either P or, if I own a cat, then I need to move house.
Question 1

b) \( B \equiv \sim A \)

It is not the case that my brother can look after my dog if and only if I can't find a suitable apartment.

(iii) \( C \land (P \equiv M) \)

I own a cat and my apartment is pet friendly or I need to move house but not both.

(iv) \( (P \land C) \land M \)

My apartment is pet friendly and I own a cat; it is not the case that I also need to move house.

(v) \( P \Rightarrow ((C \land M) \lor \sim (C \lor M)) \)

If my apartment is not pet friendly, then, either, I own a cat and need to move house, or it is not the case that I either own a cat or need to move house.
Question 2

\[
\begin{array}{cccc}
\multicolumn{1}{|c|}{P} & \multicolumn{1}{|c|}{Q} & \multicolumn{1}{|c|}{\sim (P \neq Q)} & \multicolumn{1}{|c|}{[(P \Rightarrow Q) \land (\sim Q \land P)]} \\
\hline
1 & 1 & 0 & 0 \\
1 & 0 & 0 & 1 \\
0 & 1 & 1 & 0 \\
0 & 0 & 1 & 1 \\
\end{array}
\]

The formula is a contingency as the main operator column has both true and false values.

\[
\begin{array}{cccc}
\multicolumn{1}{|c|}{P} & \multicolumn{1}{|c|}{Q} & \multicolumn{1}{|c|}{R} & \multicolumn{1}{|c|}{\sim P \lor (\sim Q \land R) \equiv [(P \land Q) \Rightarrow R]} \\
\hline
1 & 1 & 1 & 1 \\
1 & 1 & 0 & 0 \\
1 & 0 & 1 & 0 \\
1 & 0 & 0 & 1 \\
0 & 1 & 1 & 1 \\
0 & 1 & 0 & 1 \\
0 & 0 & 1 & 1 \\
0 & 0 & 0 & 1 \\
\end{array}
\]

The formula is a tautology because all of the values in the main operator column are true.
Question 3

a) (i) (a) is indifferent to (b)
(ii) (a) is contradictory to (c)
(iii) (a) is implied by (c)
(iv) (c) is contrary to (d)

b) If one formula (x) implies another formula (y), it means that in no cases will (x) be present and (y) not be. In other words, the consequent is never denied by the antecedent. An example of this is: if something is a frog, then it is an amphibian (the something being a frog represents (x) and it is an amphibian is (y)).
Question 4

1. \( A \neq B \)  
2. \( (C \vee D) = E \)  
3. \( \sim (F \vee G) \)  
4. \( D = (C \equiv \sim B) \)  
5. \( \sim ((B \vee E) = \sim A) \)  
6. \( \sim (B \vee E) \)  
7. \( \sim A \)  
8. \( D \)  
9. \( \sim (F \vee G) \)  
10. \( \sim F \)  
11. \( \sim G \)  
12. \( \sim D \)  
13. \( (C \equiv \sim B) \)  
14. \( \sim A \)  
15. \( B \)  
16. \( \sim B \)  
17. \( \sim (C \vee D) \)  
18. \( \sim C \)  
19. \( \sim D \)  
20. \( X \)  

\[ A \quad B \quad C \quad D \quad E \quad F \quad G \]

Not all paths close; the argument is invalid.

Counter Example: 0 1 0 1 1 0 0
All paths close; the argument is valid.
<table>
<thead>
<tr>
<th>Object</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>green and a frog</td>
</tr>
<tr>
<td>b.</td>
<td>green and not a frog</td>
</tr>
<tr>
<td>c.</td>
<td>not green and a frog</td>
</tr>
<tr>
<td>d.</td>
<td>not green and not a frog</td>
</tr>
</tbody>
</table>

- a. is a green frog: ✓
- b. is green but not a frog: ✓
- c. is a frog, but isn't green: ✓
- d. is not a frog and is not green: ✓
Question 6

(a) (i) Alice marries Grant and proposes a toast.

\[ \text{Amg & (f)(x, y, z) } \]

(ii) There is a wedding attended by both Alice and Grant.

\[ (\exists x) (\exists y) (x, y) (A, x) \& (G, x) \]

(iii) If Alice marries Grant, then many people will attend a wedding.

\[ \text{Amg \& then \& } (\exists x) (\exists y) (x, y) (P, x) \& (W, y) \& (T, y) \]

(iv) Any person who attends a wedding proposes a toast.

\[ (\exists x) (\exists y) (x, y) (P, x) \& (W, y) \& (T, z) \]

(v) There is a wedding at which no person who attends proposes a toast.

\[ (\exists x) \& (\exists y) (x, y) (P, x) \& (W, y) \& (T, z) \]

b) (i) \( (\exists x) (\exists y) (x, y) (A, x) \& (G, x) \)

Either Alice attends a wedding or Grant does.

(ii) \( (\exists x) (\exists y) (x, y) (W, x) \& (G, x) \& (A, x) \)

There is no wedding that Grant attends which Alice doesn't attend as well.

(iii) \( (\exists x) (\exists y) (x, y) (I, x) \& (G, y) \)

Alice attends a wedding and Grant proposes a toast.

(iv) \( (\forall x) (\exists y) (x, y) (T, x) \& (P, y) \& (A, y) \)

All toasts are proposed by people who attend weddings.
Question 7

Premis 1
\[
(\exists x) (P(x) \land Q(x)) \implies (\exists x) (P(x) \lor Q(x))
\]
\[
\vdash (\exists x) (P(x) \land Q(x)) \lor (\exists x) (P(x) \lor Q(x))
\]

Premis 2
\[
(\exists x) (G(x) \equiv F(x) \land H(x))
\]
\[
\vdash (\exists x) (G(x) \equiv F(x) \lor H(x))
\]
Question 7

a) CONCLUSION \( ( \forall x ) \left[ H_x = ( G_{x_c} \neq E_{x_c} ) \right] \)
\[ H_a = ( G_a \neq E_a ) \] \& \[ H_b = ( G_b \neq E_b ) \]
\[ a > 0 \neq 0 \] \& \[ 1 > ( 0 \neq 1 ) \]
\[ 0 \neq 1 \] \& \[ 0 > 1 \]
\[ 0 \neq 1 \] \& \[ 0 > 1 \]
\[ \text{False} \]

These values do provide a counter example as they provide truth in both premises and falsehood in the conclusion.

b) \( ( \forall x ) ( \forall y ) \left[ x > y \Rightarrow \neg ( x > y ) \right] \Rightarrow x > y \)

\( ( \forall x ) ( \forall y ) \left[ x > y \Rightarrow \neg ( x > y ) \right] \Rightarrow x > y \)

\( ( \forall x ) ( \forall y ) \left[ x > y \Rightarrow \neg ( x > y ) \right] \Rightarrow x > y \)

\( ( \forall x ) ( \forall y ) \left[ x > y \Rightarrow \neg ( x > y ) \right] \Rightarrow x > y \)

Yes, these values provide a counter example to the formula by substituting them in the formula is false.
Question

1. \((\forall x) (F(x) \rightarrow R(x))\)  
   \(\text{PR}\)
2. \((\exists x) (B(x) \land \sim (x))\)  
   \(\text{PR}\)
3. \(\sim (\exists x) (A(x) \land \sim (x))\)  
   \(\text{NC}\)
4. \((\forall x) \sim (A(x) \land \sim (x))\)  
   \(\text{G}\)
5. \((B(a) \land \sim C(a))\)  
   \(\text{G}\) \(a = 1\)
6. \(B(a)\)  
   \(\text{G}\) \(a = 5\)
7. \(\sim C(a)\)  
   \(\text{G}\)
8. \((A(a) = B(a))\)  
   \(\text{G}\) \(a = 1\)
9. \(\sim A(a) \land B(a)\)  
   \(\text{G}\)
10. \(\sim (A(a) \land \sim C(a)) \sim (A(a) \land \sim C(a))\)  
    \(\text{G}\) \(a = 1\)
11. \(\sim A(a) \land \neg c(a) \land \neg c(a) \land \neg c(a)\)  
    \(\text{G}\) \(a = 1\) 
    \(\text{G}\) \(a = 1\)

Not all paths close. The argument is invalid.

Counter Example

<table>
<thead>
<tr>
<th>(A(a))</th>
<th>(B(a))</th>
<th>(C(a))</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

\(\checkmark\)
Question 9

Symbolic logic has many limitations. It does not provide a number, rather a quantity. So, (3+2) means 'some' or 'more than one'. So a statement could have this quantitative value, but there be every one but one of this characteristic. Symbolic logic also can only refer to propositional statements. It is a difficulty because many don't talk in this way. There are also a limited number of relationships between propositions in symbolic logic, causing issues of clarity.
Question 10

(a) \( \frac{6}{36} \)  

(i) one 3   
Favourable outcomes = \( 10 \)  
Total outcomes = \( 36 \)  

(ii) same number  \( \frac{6}{36} = \frac{1}{6} \)  

(iii) total \( > 9 \)  
\( \frac{6}{36} = \frac{1}{6} \)

(b)  
\( \frac{1}{3} \)  
get the job  
jet ski  \( \left( \frac{1}{3} \right) \)  

\( \frac{1}{3} \)  
get the job  
jet ski  \( \left( \frac{2}{3} \times \frac{1}{6} \right) \)  

\( \frac{1}{3} \)  
jet ski  \( \left( \frac{2}{3} \times \frac{1}{6} \right) \)  

Either way, the probability of getting a jet ski is:  
\( \frac{1}{3} \times \left( \frac{2}{3} \times \frac{1}{6} \right) = \frac{5}{12} \)
Question 10

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Probability</th>
<th>Gain</th>
<th>Probex Gain</th>
</tr>
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<tbody>
<tr>
<td>player wins</td>
<td>1/87</td>
<td>$250</td>
<td>6.16</td>
</tr>
<tr>
<td>casino wins</td>
<td>86/87</td>
<td>$100</td>
<td>97.29</td>
</tr>
</tbody>
</table>

$100 wager... casino would pay $250 if player won.

For every $100 wagered, the casino can expect to profit $97.29.
Question 11

(a) 

<table>
<thead>
<tr>
<th>A &amp; B</th>
<th>B &amp; C</th>
<th>A &amp; E</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

(ii) A & E is a possible, necessary condition for Z.
(iii) Absence of C is a possible, sufficient condition for Z.
(iv) (A & E) is a possible, sufficient condition of Z.
(v) (A & E) and the absence of C are possible, necessary and sufficient conditions of Z.

(c) This is a useful method for identifying causes of illness as it clearly shows which conditions are most probably directly related to the illness. It also differentiates these conditions into sufficient (always present when illness is present) and necessary (present in illness and not) at all times. This system would be very useful for these reasons.
Paper Two

Part F Question 1

(i) The structure of the analogy consists of three premises: claiming that:

1. Schooling, 20 years ago, did not involve accessing computers or the Internet to complete work for students.

2. Traditional, style, learning took place comprising of: memorisation, arithmetic, reading, and writing with pen and paper.

3. Research took place in the library.

The analogy concludes that: from this, students became literate and proficient in mental arithmetic and have learnt to read, fulfilling successful lives.

This analogy is used in comparison to a more son who spends considerable amounts of time in front of computers at school, cannot do maths without a calculator, has awful handwriting.

The argument concludes that if schooling was more similar to how it was 20 years ago, his son "might stand a chance at getting ahead in life".

(ii) The analogy is not very strong: this is so as it does not account for modernisation in the working world, and that the son would need computer and calculator skills, more so than mental arithmetic and neat handwriting. The definition of a successful, fulfilling life is also arguable between its features among individuals. The new depth of vast information is also not addressed by the man.
The fallacy of reasoning committed in the cartoon is the slippery slope fallacy. This was carried through the jumps made, from homework to college, to getting a job, getting fired, and thus going bankrupt. And losing everything. The argument has jumped to ridiculous conclusions to justify not doing an act (his homework) for reasons that are totally irrelevant. This is regardless of all of the "ifs" in the argument - which are a lot to count on. For this, slippery slope fallacy, to remotely come true...
The fallacy Alex has made is the fallacy of composition. This occurs through Alex taking the "fact" that married people are significantly happier than single people and applied it to herself. In applying it to herself she believed that if she got married she wouldn't have a "miserable life". But this she has not accounted for individual circumstances. The credibility of the research on what comprises "happiness".
This argument is flawed in that it has taken one "well-accepted" fact... that if a young student... loses a pet... they will undergo emotional stress... and... their grades will... therefore... drop... and... decided... that... to avoid this... no pet... shall... be... bought... It has left... other reasons for emotional stress... aside... and... is... purely... concerned... with... the... grades of the young student... However, there are... equal... amounts of reasons... for... students... grades dropping... not... just... this... single... fact...
The "appeal to authority" fallacy is a fallacy of irrelevance. This fallacy is committed when an argument is reasoned on statements, true or false, made by an authority figure. The authority figure could be a celebrity, politician, author, and their expertise on the subject could be nonexistent yet is a common reason for people to do things. A common example of "appeal to authority" is the celebrity endorsement in advertising. For example, Grant Hackett endorsing Uncle Toby's bars. From this advertisement, people may and have justified eating Uncle Toby's muesli bars to be like Hackett—an Olympian. Similarly, in David Beckham's mile endorsement, Britney Spears and Rihanna, the list goes on.
There is much ethical debate on sentencing of guilty people in courts. The Sentencing Act 1992 outlines five main aims of punishment: deterring, denunciation, retribution, rehabilitation, and prevention. The aim of deterrence in the act is "to deter the offender or other persons from committing the same or a similar offence". Various methods of punishment can be used to achieve this. Kantian and utilitarianism ethical enthusiasts have evaluated the morality of this aim of punishment and concluded it as morally good.

Utilitarians believe morally good actions to be those which produce the greatest amount of pleasure to the greatest number of people. Jeremy Bentham created the propositional calculus to value the amount of pleasure, joy, and happiness, and its intensity, duration, amongst other things. Punishment is morally wrong if it produces the greatest amount of pain suffering to the greatest number of people. From this evaluation of a sentence imposed is possible that the imposed sentence on the guilty party might cause them suffering. For the immediate future, however, if the sent person achieves the aim of deterrence, the person will not re-offend. This will provide them with great happiness of never being convicted of an offence again, paying legal bills, serving the punishment or living with the shame of re-offending. These factors alone affirm the correct moral worth of deterrence. On top of this, the aim of deterrence also helps to achieve a safer living environment for society with less offences being committed, a flow on from this is that there will be fewer victims and also less suffering within society. Utilitarianism also proves the aim of punishment deterrence to be morally good.

Immanuel Kant based his ethical systems on the motives of people. He separated the effect from the action and the action from the...
agent...it is from the agent he evaluated morality by the categorical imperative. The categorical imperative endorses the principle of universalizability. Kant's views were black and white, and never circumstantial. By evaluating the motives for an aim of punishment to be created is near impossible without the sentinels present. However, if the aim of deterrence was unassailable to sentencing, to protect society and offenders from re-offending for their personal safety and welfare, it is morally good. But if it was introduced to cut down costs in courts and jail, this is not moral...Kantian...ethics: The aim of deterrence, being to have offenders and persons refrain from offending, makes the imposed punishment morally good. If it was to enhance the life and welfare of the offender, the universalsability of deterrence as an aim of punishment in the legal system is morally good. If all punishments were to achieve this aim...offenses would go down in our society, benefiting everyone; thus satisfying a just motive.

Kantian...and...Utilitarian ethics, beliefs both affirm deterrence as a morally good aim of punishment for Queensland's legal system. The reparation of successful deterrence, imposed punishments benefit offenders and society, welfare, and safety. Thus appealing to Utilitarianism: The agent's reason for deterrence, being unknown makes evaluation difficult for Kantian ethics, however, the expected consequences of successful deterrence result in a moral motive. The universalsability of deterrence also affirm's it as a moral aim of punishment for imposed sentences on offenders. Therefore it can be seen that both ethical frameworks affirm deterrence as a moral aim of purpose of imposed sentences on offenders.
There are hundreds of arguments for
Pascal’s Wager... is one of the many traditional arguments for the
existence of God. It was created by Blaise Pascal. The argument
is concise and simple yet has major flaws that have been
outlined by several contemporary atheists. Its lack of evidence, failure
to attempt to achieve its purpose, and the simple fact it is a gamble
are to name a few.

Pascal’s Wager consists of four scenarios, with four very different outcomes.
Firstly, you can believe in God and he exists, therefore you receive
eternal pleasure in Heaven. Secondly, you can believe in God and he
doesn’t exist, losing nothing. Or you can choose to not believe in God;
in this situation if God doesn’t exist, you’ve won again, lost nothing.
However, if he does exist, you will suffer eternal damnation in Hell.
The Wager is simple, appealing to people through their emotions and
reason and makes believing in God seem to have an amazing
pay-out. Unfortunately, the Wager does not address the issue of God’s
existence, nor prove or disprove it like the Ontological Argument or
First Cause Argument. This initial flaw begins the deconstruction
of Pascal’s Wager.

Despite the appeal of Pascal’s Wager, its many flaws are ever
present. The Wager proposes four outcomes, which you have
control to choose over: This however is incorrect. Freedom of belief
is a falling "issue", hence people do not have the freedom of choice in their beliefs, try as they might. Also if God was
omnipotent he would know why a person chose to believe in him.
Considered in Christianity

God would not let the person enter Heaven or not be omnipotent. On top of this the issue of which God He is to Pascal is referring to becomes present in the "chance" of belief in God. Even if it is the Christian God, which form of Christianity believes in this God? Even if the correct religion is chosen you then must rely on the existence of this God to base in eternal pleasure in Heaven.

The narrowness of Pascal's wager of religion is not seen in the arguments of design and cosmological. These arguments provide existence of God. Through just as flawed purposes. However, do not specify his religion or afterlife proceedings. It is for this matter and the issues stated earlier that Pascal's wager is a completely flawed argument for the existence of God.

Pascal's argument for the existence of God, prevalent issue of freedom of belief, omnipotence, self greed and utter lack of any proof of God's existence. That Pascal's wager is a completely flawed argument for the existence of God.