



ASSESSMENT and  
QUALIFICATIONS  
ALLIANCE

# Mark scheme

# June 2003

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## GCE

## Philosophy

### Unit PLY4

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## AS PHILOSOPHY UNIT

*Candidates must answer one question.*

**1**

**Total for this question: 50 marks**

- (a) *Describe and illustrate two criticisms of dualism.* (18 marks)

### **Knowledge and Understanding (9 marks)**

Responses may distinguish between substance and property dualism but are likely to focus on Cartesian dualism. This may be briefly described as the view that body is extended, public, subject to physical laws etc. whereas mind is not extended, not subject to physical laws, private. Mental states are incorrigible: self-knowledge, via doubt and introspection, is in some sense immediate and carries a special sort of first-person authority. Marks are available for identifying criticisms. These may be drawn from a range of ontological and epistemological difficulties e.g.:

- The problem of how mental states (causally) interact with physical states and/or the problem of viewing mental states as epiphenomena.
- The problem of other minds – that while each of us has privileged access to, and is certain about, our own mental states (thoughts, perceptions, sensations, intentions etc.) none of us has direct awareness of the mental states of others.
- Solipsism and/or how we become language users.
- The problem of how we assign different mental states to the same mind. Other relevant criticisms should also be rewarded.

- 7-9 Demonstrates detailed and precise knowledge and understanding of **two** criticisms of dualism.
- 4-6 Demonstrates either a range of knowledge but general, prosaic understanding of two criticisms, or narrow and detailed knowledge and understanding e.g. one criticism of dualism is developed but a second is omitted, unclear or unconvincing.
- 1-3 Demonstrates some knowledge and limited understanding of ways in which dualism might be criticised.
- 0 No relevant philosophical knowledge and understanding.

### **Selection and Application (9 marks)**

Illustrations, or a single illustration covering two criticisms, might draw from:

- Difficulties in explaining the link between mind and body, e.g. pineal glands, parallelism, epiphenomenalism, or, generally, to the issue of how ‘the purer spirit is united to this clod’. There may also be illustrative examples concerning willing and acting.
- Illustrations of the alleged privacy and certainty of certain sensations, emotions, moods, intentions and the contrast between the immediacy and certainty of self-knowledge and the less certain inferences made in relation to others. This might be linked to solipsism and/or the problem of other minds.
- Personal identity.
- Incompatibility with science, etc., etc.

- 7-9 Selects, or constructs, at least one relevant example and applies this to provide a clear, detailed and precise illustrative analysis of **two** criticisms of dualism.
- 4-6 Selects, or constructs, at least one relevant example to provide a partial explanation, lacking detail and precision, as an illustrative analysis of at least one criticism of dualism. Responses in this band may be characterised by detailed explanation rather than illustration.
- 1-3 Selects and applies at least one relevant point to provide a basic explanation and/or sketchy illustration of why dualism might be criticised **or** some relevant points feature in a tangential approach to criticisms of dualism.
- 0 No relevant philosophical points.

(b) *Assess the view that the mind is the brain.*

(32 marks)

### **Knowledge and Understanding (8 marks)**

Candidates may identify the view as the identity theory. Beyond this:

- There may be distinctions drawn between type and token identity theories, anomalous monism, biological naturalism.
- There may be general references to materialism and/or physicalism.

However, full marks can be obtained for a detailed and precise account of any version of the identity theory stressing that it is the case, or that it will turn out to be the case, that mental states are identical to brain states or, insofar as they are causally responsible for anything, are physical states falling under physical laws.

- 7-8 Demonstrates detailed and precise knowledge and understanding of arguments and theories relating to the view that the mind is the brain.
- 4-6 Demonstrates either a range of knowledge but general, prosaic or partial understanding of arguments and theories relating to the view that the mind is the brain or narrow and detailed but partial knowledge and understanding of arguments and theories relating to the view that the mind is the brain.
- 1-3 Demonstrates some knowledge and limited understanding of relevant arguments and theories relating to the view that the mind is the brain.
- 0 No relevant philosophical knowledge and understanding.

### **Selection and Application (8 marks)**

Some of the following, or equivalent, points should be selected for discussion:

- Support for the view might be given in terms of reasons for holding it: the explanatory success of the neuro-sciences; the neural dependence of mental phenomena; the physical origin and constitution of the individual; evolutionary explanations of the development of brain capacities; the ability to explain mental causation by bringing it into the physical domain; ridding the world of nomological danglers in the interests of unified science.
- Critical points (likely to be favoured) include: the failure to give an adequate account of consciousness, e.g. the intentionality of mental states; absent qualia; the irreducibility of subjective features of mental events to objective physical processes; whether mental events can be individually picked out and related to individual brain events; AI and variable realisation (functionalism); whether a mental vocabulary is necessary at all (eliminative materialism); whether the identity is contingent or necessary; whether mentality, or mental causation, falls under strict causal laws.

- 7-8 Selects, or constructs, relevant points and examples and applies these to provide a clear, detailed and precise illustrative analysis of the view that the mind is the brain.
- 4-6 Selects, or constructs, some relevant points and examples to provide a partial analysis, either narrowly focused or lacking detail and precision, of the view that the mind is the brain.
- 1-3 Selects and applies some relevant points to provide a basic analysis of the view that the mind is the brain **or** some relevant points feature in a tangential approach to the question.
- 0 No relevant philosophical points.

### **Interpretation and Evaluation (16 marks)**

Evaluation should be present in consideration of points selected for discussion. Beyond this a number of responses are possible.

- A balanced argument: the view has some strengths and some weaknesses.
- An argument favouring physicalism: the only plausible explanation of what the mind is and how it works.
- An argument favouring dualism: insisting on the irreducible nature of mental properties.

- 13-16 Demonstrates the ability to interpret and integrate a range of points selected for discussion into a reasoned and coherent argument, sustaining relevance and directly addressing the question.
- 9-12 Demonstrates a critical appreciation of arguments and theories either by evaluating some material and forming judgements or summaries in relation to the question: responses in this band will advance a clear but inadequately supported position.
- 5-8 Evaluation is present within an exposition of arguments but is either implicit in a juxtaposition of theoretical approaches, briefly argued, possibly with limited depth, scope and accuracy, or poorly focused in relation to the specific question.
- 2-4 Demonstrates a simple and basic appreciation of a limited range of material, or of limited aspects of the issue. Discursive points may be listed, asserted with very little explanation, limited and poorly developed or may have limited relevance.
- 0-1 Little or no relevant philosophical insight.

2

**Total for this question: 50 marks**

- (a) *Describe and illustrate how solipsism is possible.* (18 marks)

**Knowledge and Understanding (9 marks)**

The notion of solipsism should be clear – the view that only I exist and/or that whilst I can be certain that I exist (as mind) I cannot know that other bodies possess minds.

The possibility of solipsism will probably be described as stemming from dualism, and particularly the ‘inner’, private and incorrigible nature of one’s own mental states (although there is scope also for discussions of qualia, intentionality and the contrast with physicality). Thus:

- While I apprehend my own sensations, desires and emotions directly, I have no direct access to the sensations, desires and emotions of others (if there are any): furthermore, because there is only a contingent relationship between an ‘inner’ sensation (such as pain) and the outward expression of it (such as pain behaviour) – so that stoicism is possible, successful pretence is possible etc. – I can never be certain that another person (if there are any) is having a sensation (such as pain). I cannot even be certain that others experience mental phenomena at all and that there are any minds other than my own.
- Some candidates may focus, legitimately, on Descartes.

Other approaches are possible e.g. via idealism and (possibly) via problems with some materialist positions, such as behaviourism.

- 7-9 Demonstrates detailed and precise knowledge and understanding of how solipsism is possible.
- 4-6 Demonstrates either a range of knowledge but general, prosaic understanding, or narrow and detailed but partial knowledge and understanding of how solipsism is possible e.g. an account which is accurately stated but brief, lacking depth and detail.
- 1-3 Demonstrates some knowledge and limited understanding of some aspect of ‘mental’ states relevant to how solipsism is possible.
- 0 No relevant philosophical knowledge and understanding.

**Selection and Application (9 marks)**

Understanding of this issue should be illustrated either by selecting examples from the literature or by constructing own examples. A wide range of potential illustrations are possible here and all well-focused (and hopefully imaginative) examples selected to illustrate understanding should be rewarded. Expect most illustrative points to focus on pains, the private nature of ‘my’ experience, the private meaning of words ‘for me’, and AI (how do ‘I’ know you’re not all robots?)

- 7-9 Selects, or constructs, relevant examples and applies these to provide a clear, detailed and precise illustrative analysis of how solipsism is possible.
- 4-6 Selects, or constructs, some relevant examples to provide a partial explanation, lacking detail and precision as an illustrative analysis of how solipsism is possible. Responses in this band may be characterised by detailed explanation rather than illustration.
- 1-3 Selects and applies some relevant points to provide a basic explanation and/or sketchy illustration of how solipsism is possible **or** some relevant points feature in a tangential approach to the question.
- 0 No relevant philosophical points.

(b) *Assess solutions to the problem of other minds.* (32 marks)

**Knowledge and Understanding (8 marks)**

Because of the connection to solipsism, the problem of other minds may be only briefly stated e.g. as:

- Solipsism is true. I only know that I am minded.
- I can never be certain about the experiences of others or whether ‘others’ have ‘experiences’.

Reward knowledge and understanding of attempted solutions, such as:

- A non-problem, or only a pseudo-problem, for materialist positions.
- The argument from analogy.
- Criteriological accounts: the private language argument, the connection between other-ascribing and self-ascribing, statements of the problem are self-defeating.
- Accounts based on the emotions (guilt, shame etc.) and ‘being-for-others’.

NB the question is plural, so good accounts should understand more than one attempted solution.

- 7-8 Demonstrates detailed and precise knowledge and understanding of arguments and theories relating to the problem of other minds.
- 4-6 Demonstrates either a range of knowledge but general and prosaic understanding of arguments and theories relating to the problem of other minds or narrow and detailed but partial knowledge and understanding of arguments and theories relating to the problem of other minds (e.g. treatment of one solution to the problem).
- 1-3 Demonstrates some knowledge and limited understanding of aspects of relevant arguments and theories relating to the problem of other minds.
- 0 No relevant philosophical knowledge and understanding.

**Selection and Application (8 marks)**

Some of the following, or equivalent, points should feature in discussions:

- This will probably be recognised as one of the main problems confronting dualism.
- Behaviourists reject the view that e.g. pain and behaviour are two different things, hence I can know your pain and the problem doesn’t arise.
- Identity theorists reject the view that there is no method of inferring what another person is experiencing. Mental states are brain processes and brains can be studied. Science can already show how areas of the brain are connected to certain ‘mental’ performances.
- The argument from analogy. Others have bodies, like me. Others respond to external stimuli, like me (e.g. they shiver in cold weather). By analogy, I can infer that others have sensations like mine.
- How could I self-ascribe if I can’t other-ascribe? How could I be a language user? Is solipsism *necessarily* false? If there are no others, could I pose the sceptical question?
- Part of my experience, and identity, includes awareness that I am as others see me. This accounts for feelings of e.g. embarrassment.

NB To address the question at least **two** solutions should be considered.

- 7-8 Selects, or constructs, relevant points and examples and applies these to provide a clear, detailed and precise illustrative analysis of arguments and theories related to solving the problem of other minds.
- 4-6 Selects, or constructs, some relevant points and examples to provide a partial analysis, either narrowly focused (e.g. on analogy) or lacking detail and precision, of arguments and theories related to solving the problem of other minds.
- 1-3 Selects and applies some relevant points to provide a basic analysis of at least one theoretical solution to the problem **or** some relevant points feature in a tangential approach to the question.
- 0 No relevant philosophical points.

### **Interpretation and Evaluation (16 marks)**

A range of argumentation, following points selected for discussion, is possible:

- Solipsism is not only a possibility it is an inescapable feature of the human condition *or* while solipsism is clearly wrong the solutions attempted are not convincing. For example, there are problems with materialist approaches; the argument from analogy is weak; criteriological approaches do not show that I can know the ‘beetle in your box’ or even that there is a ‘beetle in your box’.
- Solipsism is wrong *and* arguments considered demonstrate (or go some way to demonstrate) why it is wrong. Behaviour, including linguistic behaviour, is a social activity.
- Some attempted solutions are weak – the argument from analogy, perhaps, because it is a weak inductive reference. Some raise problems of their own, e.g. AI and/or aliens without brains post difficulties for some materialist views. Others are more convincing.

- 13-16 Demonstrates the ability to interpret and integrate a range of points selected for discussion into a reasoned and coherent argument, sustaining relevance and directly addressing the question.
- 9-12 Demonstrates a critical appreciation of arguments and theories either by evaluating some material and forming judgements or summaries in relation to the question or by advancing a clear but inadequately supported position.
- 5-8 Evaluation is present within an exposition of arguments but is either implicit in a juxtaposition of theoretical approaches, briefly argued with limited scope, depth and accuracy, or poorly focused in relation to the specific question (e.g. only one solution is assessed).
- 2-4 Demonstrates a simple and basic appreciation of a limited range of material, or of limited aspects of the issue. Discursive points may be listed, asserted without explanation, limited and poorly developed or may have limited relevance.
- 0-1 Little or no relevant philosophical insight.

3

**Total for this question: 50 marks**

- (a) *Describe and illustrate two differences between negative freedom and positive freedom.*  
(18 marks)

**Knowledge and Understanding (9 marks)**

The concept of negative freedom stresses freedom from, for example:

- freedom from coercion and restraint
- freedom from interference in one's private life (providing one is not harming others) and is connected to the classical liberal concern to mark out a sphere of private life and/or define and limit the legitimate activities of the state.

The concept of positive freedom stresses freedom to, for example:

- freedom to act in certain ways, freedom to exercise control over one's own life
- freedom to become a subject; freedom to set, pursue and achieve interests and goals; self-realisation

and is connected to political philosophies stressing a legitimate role for rational state agency in developing individuals and requiring participation in public life.

- 7-9 Demonstrates detailed and precise knowledge and understanding of two differences.  
4-6 Demonstrates either a range of knowledge but general, prosaic or partial understanding of two differences, or narrow and detailed but partial knowledge and understanding e.g. strong accounts of one difference between negative and positive freedom in which the second difference is neglected or poorly explained.  
1-3 Demonstrates some knowledge and limited understanding of relevant aspects of one or both differences.  
0 No relevant philosophical knowledge and understanding.

**Selection and Application (9 marks)**

Examples, which may be constructed or selected from various sources, should illustrate **two** differences between these concepts. For example:

- whereas one stresses freedom from, the other stresses freedom to
- whereas one is concerned to minimise interference, the other seeks to justify interference
- whereas in one all (most) private interests and desires ought to be protected, in the other only some interests and desires (of the higher self) ought to be developed etc.

Illustrations may draw from the literature (e.g. chapter 5 of *On Liberty*), from social issues (e.g. drug use, pornography, paedophilia), from social roles (e.g. parenting), from descriptions of individual tastes and behaviours or from political issues (e.g. the promotion of lifelong learning).

- 7-9 Selects, or constructs, a relevant example or examples and applies these to provide a clear, detailed and precise illustrative analysis of **two** differences between negative freedom and positive freedom.  
4-6 Selects, or constructs, some relevant examples to provide a partial illustration, either narrowly focused on one difference or lacking detail and precision as an illustrative analysis of two differences. Generalised accounts blurring two differences together should be placed in this band as should responses characterised by detailed explanations rather than illustrations of these concepts.  
1-3 Selects and applies some relevant points to provide a basic explanation and/or sketchy illustration of at least one difference or some relevant points feature in a tangential



approach to the question (e.g. there is a failure to focus the illustration on different notions of freedom).

0 No relevant philosophical points.

(b) *Assess whether laws should attempt to uphold the moral standards of society.* (32 marks)

### **Knowledge and Understanding (8 marks)**

The standard context for this debate is the tension between liberal and conservative approaches to the role of law although, following part (a), there is scope for a discussion of a broadly social democratic approach. Thus:

- the liberal concern has been to minimise interference with individual liberty by delineating a private sphere, free from public authority
- whereas conservative thinkers have traditionally accorded priority to the role of law in promoting social cohesion, moral regulation and the enforcement of order
- and, connected to positive freedom, there is a sense in which a notion of social justice may inform the moral standards of society in which case it might be argued that law should seek to promote this.

7-8 Demonstrates detailed and precise knowledge and understanding of arguments and theories relating to the view that laws should attempt to uphold the moral standards of society.

4-6 Demonstrates either a range of knowledge but general and prosaic or partial understanding of arguments and theories relating to the view that laws should attempt to uphold the moral standards of society or narrow and detailed but partial knowledge and understanding of arguments and theories relating to the view that laws should attempt to uphold the moral standards of society.

1-3 Demonstrates some knowledge and limited understanding of relevant arguments and theories relating to law and moral standards.

0 No relevant philosophical knowledge and understanding.

### **Selection and Application (8 marks)**

Some of the following, or equivalent, points should be discussed:

- The liberal view that private acts which do not accord with public morality, whatever that is taken to be, are not the business of the law, authority or the state unless they are causing harm to others. Is this itself a moral standard of society?
- Clearly, there is considerable scope for a contextual discussion of the private/public distinction and/or of what constitutes harm to others and/or of how the intrusion of public morality may cause harm to some.
- Is society threatened or enhanced by 'experiments in living', by deviation from norms and/or by pluralism?
- The conservative view is that society is threatened if there is no recourse to a strong public morality backed-up by legal sanctions. Thus, the law should punish 'the grosser forms of vice'.
- What status should be given to 'public morality'? Does this reflect a genuine consensus on values or is it an ideological construct? Is it a tyranny? Is it a tyranny of the majority or of a minority?
- Does the law have a positive role in defining and re-defining the moral standards of society? What comes first, morality or law?
- Public morality and/or moral standards change. What impact does this have?

- 7-8 Selects, or constructs, relevant points and examples and applies these to provide a clear, detailed and precise illustrative analysis of the view that laws should attempt to uphold the moral standards of society.
- 4-6 Selects, or constructs, some relevant points and examples to provide a partial analysis, either narrowly focused or lacking detail and precision, of the view that laws should attempt to uphold the moral standards of society.
- 1-3 Selects and applies some relevant points to provide a basic analysis of the view that laws should attempt to uphold the moral standards of society or some relevant points feature in a tangential approach to the question.
- 0 No relevant philosophical points.

### Interpretation and Evaluation (16 marks)

A range of argument is possible including an evaluation of positions taken in arguments selected for discussion. Beyond this:

- A position, e.g. classical liberalism, might be strongly argued for: *either* through contrasting the individual with public tyranny *or* through claiming that individualism, social utility and moral standards are not at odds. The law has a role in promoting moral standards insofar as these are connected to utility and/or the common interests of man. Laws should be enacted to the extent that they guarantee rights which protect individual interests in accordance with social utility – e.g. freedom of thought and expression is in the interests of individuals and society if either is to flourish and progress.
- Alternatively, through a discussion of certain tastes or behaviours which are seen as intolerable, conservatism may be argued for. This may be linked to deontological conceptions of morality. Actual law is informed by natural law. The law is not morally neutral, conceptions of rights (despite the philosophical difficulties involved) have, rightly, informed the construction of law. However, the extent to which this coincides with public morality might be questioned *and/or* this position might be applied to the issue of just and unjust laws.
- There may be an attempt to ease the tension between different approaches by taking a more formal approach to both law and morality: e.g. law is characterised by purely formal principles rather than by substantive conceptions of what cannot or ought not to be tolerated.
- The debate is a pseudo-debate. Law prescribes objective legal rights and duties but there are no objective moral rights and duties. Law is morally neutral.
- The debate may be dismissed as ideological. Both moral standards and laws are socially constructed under specific conditions.

- 13-16 Demonstrates the ability to interpret and integrate a range of points selected for discussion into a reasoned and coherent argument, sustaining relevance and directly addressing the question.
- 9-12 Demonstrates a critical appreciation of arguments and theories either by evaluating some material and forming judgements or summaries in relation to the question or by advancing a clear but inadequately supported position.
- 5-8 Evaluation is present within an exposition of arguments but is either implicit in a juxtaposition of theoretical approaches, briefly argued possibly with limited depth, scope and accuracy or poorly focused in relation to the specific question.
- 2-4 Demonstrates a simple and basic appreciation of a limited range of material, or of limited aspects of the issue. Discursive points may be listed or asserted with very little explanation, limited and poorly developed or may have limited relevance.
- 0-1 Little or no relevant philosophical insight.

4

**Total for this question: 50 marks**

- (a) Describe and illustrate **two** criticisms of the view that punishment should be used as a deterrent. (18 marks)

**Knowledge and Understanding (9 marks)**

The notion of deterrence *may* be clarified as involving:

- An attempt to deter the criminal/law-breaker from committing further offences *and* an attempt to deter the law abiding from committing offences.
- A concern for society and the future well-being of society.

Understanding of the concept may be implicit in the criticisms offered. These are likely to be selected from:

- Whether deterrence works.
- Whether it is always appropriate (i.e. whether there are circumstances which excuse an isolated act of wrongdoing by a normally law-abiding individual).
- Whether there are grounds, e.g. utilitarian grounds, for punishing the innocent in which case the link between guilt and punishment is broken and/or individual rights cannot be safeguarded.

- 7-9 Demonstrates detailed and precise knowledge and understanding of **two** criticisms of the view that punishment should be used as a deterrent.
- 4-6 Demonstrates either a range of knowledge but general and prosaic or partial understanding of **two** criticisms, or narrow and detailed but partial knowledge and understanding e.g. one criticism of the view that punishment should be used as a deterrent is developed but the second is omitted, unclear or unconvincing.
- 1-3 Demonstrates some knowledge and limited understanding of at least one relevant criticism of the view that punishment should be used as a deterrent.
- 0 No relevant philosophical knowledge and understanding.

**Selection and Application (9 marks)**

Illustrations of two criticisms could draw from numerous factual or constructed circumstances in which deterrence is thought to have some bearing. For example:

- Would punishment deter a crime of passion? Does punishment deter seasoned criminals? Does it deter those committed to certain causes? Can some law-breakers become so institutionalised as to actively seek punishment? Some empirical evidence may be offered, some fictional examples may be given.
- Should women who kill violent partners be punished?
- Efforts to deter terrorism, for example, have led to the innocent being punished (e.g. Birmingham six, Guildford four) and to the extent that retaliation and/or the imposition of sanctions might be used as examples of punishment, again, the case can be made that the innocent suffer.

- 7-9 Selects or constructs a relevant example or examples and applies these to provide a clear, detailed and precise illustrative analysis of **two** criticisms of the view that punishment should be used as a deterrent.
- 4-6 Selects or constructs relevant points or examples to provide a partial explanation, either narrowly focused on one criticism or lacking detail and precision as an illustrative analysis of two criticisms of the view that punishment should be used as a deterrent. Responses in this band may be characterised by detailed explanation rather than illustration.

- 1-3 Selects and applies some relevant points to provide a basic explanation and/or sketchy illustration of at least one criticism of deterrence or some relevant points feature in a tangential approach to two criticisms of the view that punishment should be used as a deterrent (e.g. references are to punishment generally).
- 0 No relevant philosophical points.

(b) *Assess whether we have an obligation to obey an unjust law.* (32 marks)

### **Knowledge and Understanding (8 marks)**

There are a number of ways into this question and a number of appropriate knowledge bases:

- The concept of unjust law might be unpacked via a consideration of the nature, legitimacy and purpose of law generally. Thus, positive law might be described as having a normative function (or as not being morally indifferent) distinct from its obligation-imposing nature. A law which failed to connect to widely accepted moral and political values might be seen as unjust and illegitimate. Or, via versions of natural law theory, particular laws may be evaluated against the principles of natural moral law, justice, rights, universal reason. There may also be references to rule utilitarianism and social contract theory.
- The issue of the relationship between the individual and the state may be raised through social contract theory; notions of authority, legitimacy and consent and/or notions of power and coercion. Thus, views about the legitimacy of the state, the justness of its actions and the implications for individuals could be considered more generally.

- 7-8 Demonstrates detailed and precise knowledge and understanding of arguments and theories relating to whether we have an obligation to obey an unjust law.
- 4-6 Demonstrates either a range of knowledge but general and prosaic or partial understanding of arguments and theories relating to whether we have an obligation to obey an unjust law or narrow and detailed knowledge and understanding of arguments and theories relating to whether we have an obligation to obey an unjust law.
- 1-3 Demonstrates some knowledge and limited understanding of relevant arguments and theories relating to whether we have an obligation to obey an unjust law.
- 0 No relevant philosophical knowledge and understanding.

### **Selection and Application (8 marks)**

Depending on the approach taken, some of the following, or equivalent, issues should be selected for discussion:

- The idea of just and unjust laws might be further explored through exposition of natural law, human rights, etc. This might lead to a consideration of when violation of the law and/or civil disobedience is permissible. Alternatively, critical discussion might draw from legal positivism and/or Marxism. Thus, Marxists might argue that authority reduces to the possession of power, legitimacy is a myth and the *reality* of power is revealed when laws are challenged. Laws are challenged but the powerful are still able to compel obedience. They may pursue legitimacy through ‘manufactured’ consent – the role of ideology – but will use force if this fails. Ultimately, law is coercive. Our ‘obligation’ to it is an aspect of our powerlessness. Law is not morally neutral in a divided society. In contrast, Legal Positivism does see law as morally neutral. Law can be defined in terms of factual origins without an evaluative ‘add-on’. There are objective legal rights and obligations, there aren’t objective moral rights and obligations. Having a legal obligation is to be subject to a command and to punishment for failing to meet it. In this sense, we’re always obligated.

- An alternative approach, focused on the legitimacy of the state generally, may consider versions of social contract theory. Hobbes: our obligation to obey sovereign power, due to the compact we have made, is virtually unconditional; generally the interests of a sovereign power coincide with our interests but if they don't, and we feel that a law is unjust, we still have a duty to comply (anarchy is worse than despotism). Locke: rebellion is legitimate to remove an executive no longer governing by consent and interfering with the legislature. Power is limited by moral law and natural rights. Are obligations grounded in voting and a promise of obedience to whichever government is elected? This raises numerous issues: whether such a weak act obliges us to obey, whether non-voters are similarly obligated, whether (if so) we can ever justify dissent, whether (logically) such a free act of consent implies the continual possibility of dissent, whether, if consent is supplemented by prudence, obedience is always prudent etc. Can there be a modified social contract allowing for dissent to unjust laws.
- 7-8 Selects, or constructs, relevant points and examples and applies these to provide a clear, detailed and precise illustrative analysis of whether we have an obligation to obey an unjust law.
- 4-6 Selects, or constructs, some relevant points and examples to provide a partial analysis, either narrowly focused or lacking detail and precision, of whether we have an obligation to obey an unjust law.
- 1-3 Selects and applies some relevant points to provide a basic analysis of whether we have an obligation to obey an unjust law or some relevant points feature in a tangential approach to the question.
- 0 No relevant philosophical points.

### **Interpretation and Evaluation (16 marks)**

A range of argumentation is possible:

- Whether we can understand legal systems, and the function of laws within them, without any reference to moral principles (whether rooted in natural law or in conceptions of the common good) and hence without any reference to notions of just and unjust laws.
  - In view of this, or in view of considerations regarding the legitimacy of the state, whether we are always obligated to comply with the law, whether our obligation is limited rather than total and, perhaps, whether we are (morally) obligated to comply at all.
  - Some might attempt to argue that there are certain laws that we are (morally) obligated to resist rather than obey and some might argue that there are certain political systems in which concepts of rights and obligations are meaningless (although care should be taken to avoid sweeping generalisations).
- 13-16 Demonstrates the ability to interpret and integrate a range of points selected for discussion into a reasoned and coherent argument, sustaining relevance and directly addressing the question.
- 9-12 Demonstrates a critical appreciation of arguments and theories either by evaluating some material and forming judgements or summaries in relation to the question or by advancing a clear but inadequately supported position.
- 5-8 Evaluation is present within an exposition of arguments but is either implicit in a juxtaposition of theoretical approaches, briefly argued possibly with limited depth, scope and accuracy, or poorly focused in relation to the specific question.
- 2-4 Demonstrates a simple and basic appreciation of a limited range of material, or of limited aspects of the issue. Discursive points may be listed, asserted with very little explanation, limited and poorly developed or may have limited relevance.
- 0 Little or no relevant philosophical insight.

5

**Total for this question: 50 marks**

- (a) Describe and illustrate **one** explanation of how scientific revolutions occur. (18 marks)

**Knowledge and Understanding (9 marks)**

Kuhn's account of the structure of scientific revolutions will probably be offered. (Reasonable alternatives should be credited although there must be a link to 'revolution' rather than merely change or progress.)

- Scientific explanation is supported by a successful, and striking, application (an exemplar) – the most significant or powerful exemplars are capable of generating whole fields of interconnected scientific theories. The success of this exemplar is such that career scientists become committed to it and begin to use it to generate a framework for further applications, explanations, predictions. Thus, within the 'life' of a paradigm 'normal science' involves approaching problems, and conceptualising questions, within the framework of reference suggested by the paradigm – a sort of 'mopping-up' operation.
- However, anomalies occur and problems emerge that appear insoluble within the framework of the paradigm, so the adequacy of the paradigm begins to be doubted. Scientific revolutions occur when a new paradigm, with better explanatory and predictive power, replaces the conventional theoretical framework of normal science. This may involve a struggle within the occupational culture. New theories may be initially 'rubbed', some researchers may find appointments difficult to come by.

- 7-9 Demonstrates detailed and precise knowledge and understanding of **one** explanation of how scientific revolutions occur.
- 4-6 Demonstrates either a range of knowledge but general, prosaic understanding, or narrow and detailed but partial knowledge and understanding relevant to **one** explanation of how scientific revolutions occur.
- 1-3 Demonstrates some knowledge and limited understanding relevant to how scientific revolutions occur.
- 0 No relevant philosophical knowledge and understanding.

**Selection and Application (9 marks)**

Illustrations may include:

- Actual paradigm shifts e.g. Creationism to Evolution to Cataclysm (Velikovsky's theory challenged whole scientific fields, such as the laws of mechanics) or to changes in mathematics e.g. Euclidean geometry to transformational geometry, the introduction of chaos theory etc.
- A largely theoretical account illustrating Kuhn's view of the 'development' of science. Scientific knowledge does *not* involve a process of gradually accumulating objective knowledge about the physical world. Emphasis is given instead to the considerable turbulence in the development of science. Moreover, it is difficult to see new paradigms as 'developing' a body of objective knowledge given that they are, to a great extent, incompatible with old paradigms. If 'normal science' involves a problem domain, agreed problem-solving techniques, agreed general principles and agreed theories etc., then a scientific revolution involves a crisis of *agreement*. Some illustration should be given.

- 7-9 Selects, or constructs, relevant examples or points and applies these to provide a clear, detailed and precise illustrative analysis of **one** explanation of how scientific revolutions occur.
- 4-6 Selects, or constructs, some relevant examples or points to provide a partial explanation, lacking detail and precision, as an illustrative analysis of **one** explanation of how scientific revolutions occur. Responses in this band may be characterised by detailed explanation rather than illustration.
- 1-3 Selects and applies some relevant points to provide a basic explanation and/or sketchy illustration of scientific revolutions **or** some relevant points feature in a tangential approach to revolutions in science.
- 0 No relevant philosophical points.

(b) *Assess the view that science is a rigorously critical activity.* (32 marks)

### **Knowledge and Understanding (8 marks)**

Candidates should focus mainly on falsification. In doing so:

- There may be an attempt to locate this view in the context of the problem of induction - the difficulty of confirming a scientific theory through inductive argument, how we can move from 'all observed A's have led to B's' to a law-like statement concerning non-observed or future A's and B's – and argue that it is possible to corroborate a claim about the relationship between A and B through attempting to refute it. Similarly, one counter-instance of an A which does not lead to B will (allegedly) conclusively refute a theory concerning the causal connection between A and B.
- Because of this, science is seen as a critical activity. A bold conjecture is made from which further empirically testable hypotheses can be deduced, and the activity of 'doing science' consists in rigorous attempts to test and falsify these hypotheses: "every scientific statement must remain tentative for ever ... it is not his possession of knowledge, of irrefutable truth, that makes the man of science, but his persistent and recklessly critical quest for truth".

- 7-8 Demonstrates detailed and precise knowledge and understanding of arguments and theories relating to the view that science is a rigorously critical activity.
- 4-6 Demonstrates either a range of knowledge but general, prosaic understanding of arguments and theories relating to the view that science is a rigorously critical activity or narrow and detailed but partial knowledge and understanding of arguments and theories relating to the view that science is a rigorously critical activity.
- 1-3 Demonstrates some knowledge and limited understanding of relevant arguments and theories relating to the view that science is a rigorously critical activity.
- 0 No relevant philosophical knowledge and understanding.

### **Selection and Application (8 marks)**

As well as an elaboration of the above view, some of the following, or equivalent, points should be selected for discussion:

- It would be useful if candidates were able to illustrate Popper's view through reference to scientific activity but, failing this, expect to see references to ravens and swans. Top-band answers will explicitly draw out the implications of these examples for science as a critical activity

- Further illustration of Popper’s view may consist of a consideration of ‘theories’ which cannot be tested, and consequently which cannot be refuted. This is most likely to involve claims that ‘scientific Marxism’ is dogma rather than a genuinely critical attempt to consider and evaluate evidence but informed candidates may consider other ‘theories’ e.g. from psychology or economics.
  - But, if all we can have is something which remains ‘tentative for ever’, how is theory to ground our beliefs and actions? Is such a view palatable?
  - If the answer to this is given in terms of theories which have been corroborated (through resisting rigorous attempts to refute them) then isn’t induction re-introduced and don’t we have a view of the scientist as building upon objective knowledge rather than attempting to tear it down?
  - Can science proceed like this? If Popper were right then a number of scientific theories would have been rejected in the early stages of their development and progress in science would not have been achieved.
  - Can theories be refuted? Scientific procedures involve theory, initial conditions and auxiliary statements: if testing fails to confirm a theory how do we know that it is the theory that is wrong rather than an auxiliary statement or some mistake made in specifying initial conditions?
  - Is it true that the scientific community is characterised by commitment to a critical or sceptical attitude? If not, if ‘doing science’ is characterised by convention and adherence to a dominant paradigm, then during ‘normal science’ theories are highly immune from falsification.
- 7-8 Selects, or constructs, relevant points and examples and applies these to provide a clear, detailed and precise illustrative analysis of the view that science is a rigorously critical activity.
- 4-6 Selects, or constructs, some relevant points and examples to provide a partial analysis, either narrowly focused or lacking detail and precision, of the view that science is a rigorously critical activity.
- 1-3 Selects and applies some relevant points to provide a basic analysis of the view that science is a rigorously critical activity **or** some relevant points feature in a tangential approach to the question.
- 0 No relevant philosophical points.

### **Interpretation and Evaluation (16 marks)**

This is likely to be present in the way that points selected for discussion are handled. Beyond this candidates may argue:

- either that Popper has been influential in both natural and social science, that his assault on “the idol of certainty” has merit because notions of certainty restrict the questions we pose and may lead to a loss of integrity in our scientific activity (cf. Mill’s liberalism)
- or that Popper’s approach is beset with problems of its own and that it fails to give an adequate account of conventional scientific activity, pragmatism and/or progress in science.



- 13-16 Demonstrates the ability to interpret and integrate a range of points selected for discussion into a reasoned and coherent argument, sustaining relevance and directly addressing the question.
- 9-12 Demonstrates a critical appreciation of arguments and theories either by evaluating some material and forming judgements or summaries in relation to the question or by advancing a clear but inadequately supported position.
- 5-8 Evaluation is present within an exposition of arguments but is either implicit in a juxtaposition of theoretical approaches, briefly argued possibly with limited depth, scope, and accuracy, or poorly focused in relation to the specific question.
- 2-4 Demonstrates a simple and basic appreciation of a limited range of material, or of limited aspects of the issue. Discursive points may be listed or asserted with very little explanation, limited and poorly developed or may have little relevance.
- 0-1 Little or no relevant philosophical insights.

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**Total for this question: 50 marks**

- (a) *Describe and illustrate the problem of induction.* (18 marks)

**Knowledge and Understanding (9 marks)**

Inductive argument in science has been concerned to address the legitimacy of:

- *Establishing* law-like connections between non-necessary truths.
- *Verifying* propositions which are of unrestricted generality (universals).
- *Justifying* the belief that the relationship between events/particulars is of a strict law-like nature.

The problem of induction, stemming from Hume, involves the status of reasoning from what has been observed to what has not been observed. A law-like connection between non-necessary truths cannot be established deductively because “the contrary of every matter of fact is possible and can never imply a contradiction” but neither can we argue inductively from propositions concerning what has been observed to propositions about what has not been observed. An ampliative inference, where a factual content which is not present in premises is present in a conclusion, requires the principle of uniformity of nature in order for it to be a valid inference but this principle cannot be established inductively (any attempt to do so would be “going round in circles”). Thus, law-like connections between non-necessary truths cannot be established inductively either. We have no valid way of reasoning from our experience of observed events/particulars to an unrestricted generalisation covering non-observed events/particulars.

- 7-9 Demonstrates detailed and precise knowledge and understanding of the problem of induction.
- 4-6 Demonstrates either a range of knowledge but general and prosaic or partial understanding of the problem of induction, or precise but partial knowledge and understanding of the problem of induction which is stated briefly and which lacks detail.
- 1-3 Demonstrates some knowledge and limited understanding of the problem of induction.
- 0 No relevant philosophical knowledge and understanding.

**Selection and Application (9 marks)**

Illustration may involve:

- Further exposition of Hume, focusing for example on ‘constant conjunction’ and illustrating what can and what cannot be established from this.
- White swans and/or black ravens.
- Russell’s chicken.
- An example, or examples, drawn from science.

- 7-9 Selects, or constructs, relevant examples and applies these to provide a clear, detailed and precise illustrative analysis of the problem of induction.
- 4-6 Selects, or constructs, some relevant examples to provide a partial explanation, lacking detail and precision, as an illustrative analysis of the problem of induction. Responses in this band may be characterised by detailed explanation rather than illustration.
- 1-3 Selects and applies some relevant points to provide a basic explanation and/or sketchy illustration of the problem of induction **or** some relevant points feature in a tangential approach to the question.
- 0 No relevant philosophical points.

- (b) *Assess the extent to which scientific method is appropriate in the social sciences.* (32 marks)

**Knowledge and Understanding (8 marks)**

This might be tackled in a number of ways and it is possible to reward a number of different knowledge bases:

- An approach rooted in a critical outline of what, exactly, scientific method is. This might involve comparing and contrasting various approaches including an idealised, or common sense, view of scientific method; the hypothetico-deductive method; the deductive-nomological model; the view that science is paradigmatic (and possibly aspects of the instrumentalist/realist dispute e.g. concerning the success of science); the view ('against method') that breakthroughs are made when rigid adherence to paradigmatic principles and procedures are dispensed with.
- An approach rooted in a critical outline of what type of explanation is sought in the social sciences. This is likely to contrast with the positivist concern to establish a science of society and laws governing social behaviour by pursuing (roughly) the methods of the natural sciences, with a phenomenological approach concerned to understand human motivation and interpret human interaction.

- 7-8 Demonstrates detailed and precise knowledge and understanding of debates concerning whether or the extent to which scientific method is appropriate in the social sciences.
- 4-5 Demonstrates either a range of knowledge but general and prosaic understanding of debates concerning whether or the extent to which scientific method is appropriate in the social sciences, or narrow and detailed but partial knowledge and understanding of the extent to which scientific method is appropriate in the social sciences.
- 1-3 Demonstrates some knowledge and limited understanding of the extent to which scientific method is appropriate in the social sciences.
- 0 No relevant philosophical knowledge and understanding.

**Selection and Application (8 marks)**

Depending on the approach taken, some of the following or equivalent points will be selected for discussion:

- Approaches rooted in a non-critical outline of the methodology of the natural sciences are likely to uncritically adopt physics as a paradigm of scientific method and explanation, stressing objectivity, rigour, predictive success etc., and contrast this with sociology or psychology which may be presented as paradigms of value-laden subjectivity. This is unlikely to be very good unless it extends into a detailed and critical philosophical discussion of, for example, the importance of informative or testable hypotheses for genuine scientific theory allegedly absent from the work of some social scientists (Popper) or of the view that science is paradigmatic whereas social science is not (Kuhn).
- Approaches rooted in a critical outline of the methodology of the natural sciences might use Popper, Kuhn, Feyerabend etc. more critically to question the objectivity, rigour and status of the principles, methods and conclusions of the natural sciences.
- Approaches rooted in a non-critical outline of (the failures of) positivist social science might refer to the normative concerns (social engineering) of some 'theorists', possibly accepting aspects of Popper's account of the 'enemies' of open society *or* contrasting (allegedly) positivist science with (allegedly) normative social science generally. This is also unlikely to be very good unless it is acknowledged, as Popper acknowledges, that much academic work in the social sciences is properly critical and genuinely theoretical in accordance with his own definitions.

- Approaches rooted in a phenomenological approach to the social sciences are likely to stress that the ‘objects’ of study for social scientists are not objects but human beings possessing a point of view of their own; the complexity of the social world; the anomalous nature of social behaviour (failure to fall under strict law-like explanations); the contestable and value-laden nature of concepts and perspectives in social science.
- 7-8 Selects, or constructs, relevant points and examples and applies these to provide a clear, detailed and precise illustrative analysis of debates concerning whether or the extent to which scientific method is appropriate in the social sciences.
- 4-6 Selects, or constructs, some relevant points and examples to provide a partial analysis, either narrowly focused or lacking detail and precision, of debates concerning whether or the extent to which scientific method is appropriate in the social sciences.
- 1-3 Selects and applies some relevant points to provide a basic analysis of debates concerning whether or the extent to which scientific method is appropriate in the social sciences **or** some relevant points feature in a tangential approach to the question.
- 0 No relevant philosophical points.

### Interpretation and Evaluation (16 marks)

This is a familiar area and may generate poorly focused and pre-rehearsed ‘is sociology a science?’ responses. Beyond this, focused evaluations may argue:

- The study of human behaviour is different from the study of inanimate objects. The concept of behaviour itself illustrates this: it involves rational or irrational action and this involves desires, motivations, intentions as *reasons* for acting. It may be necessary to understand these within a causal account of human behaviour (reasons as causes) but most writers who take this view see it as compatible with free will and moral responsibility. These are not contentious issues in natural science. Understanding and explaining in the social sciences is not enhanced by adopting the methodology of the natural sciences.
- Perhaps the differences between natural sciences and social sciences have been exaggerated. There are similarities. Both involve human processes and are underpinned by values, ways of seeing, commitment to theories etc. Neither are purely objective and neither generate certainties. There are differences between natural and social science *but* these do not amount to differences between a *superior* and an *inferior* approach to study.

- 13-16 Demonstrates the ability to interpret and integrate a range of points selected for discussion into a reasoned and coherent argument, sustaining relevance and directly addressing the question.
- 9-12 Demonstrates a critical appreciation of arguments and theories either by evaluating some material and forming judgements or summaries in relation to the question or by advancing a clear but inadequately supported position.
- 5-8 Evaluation is present within an exposition of arguments but is either implicit in a juxtaposition of theoretical approaches, briefly argued possibly with limited depth, scope and accuracy, or poorly focused in relation to the specific question.
- 2-4 Demonstrates a simple and basic appreciation of a limited range of material, or of limited aspects of the issue. Discursive points may be listed or asserted with very little explanation, limited and poorly developed or may have little relevance.
- 0-1 Little or no relevant philosophical insight.