



General Certificate of Education

Philosophy 5171/6171

*PLY4 Philosophy of Mind, Political Philosophy
or Philosophy of Science*

Mark Scheme

2005 examination – June series

Mark schemes are prepared by the Principal Examiner and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation meeting attended by all examiners and is the scheme which was used by them in this examination. The standardisation meeting ensures that the mark scheme covers the candidates' responses to questions and that every examiner understands and applies it in the same correct way. As preparation for the standardisation meeting each examiner analyses a number of candidates' scripts: alternative answers not already covered by the mark scheme are discussed at the meeting and legislated for. If, after this meeting, examiners encounter unusual answers which have not been discussed at the meeting they are required to refer these to the Principal Examiner.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of candidates' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

Philosophy of Mind, Political Philosophy or Philosophy of Science PLY4

Theme: Philosophy of Mind

NB The following marking notes are not prescriptive and do not constitute ‘model answers’: they are intended as an ‘aide-memoire’ for Examiners. Marks should be awarded in accordance with the levels-of-response marking criteria.

1

Total for this question: 50 marks

(a) Describe and illustrate two criticisms of logical (philosophical) behaviourism. (18 marks)

Knowledge and Understanding (9 marks)

Candidates probably provide a brief exposition of logical behaviourism as the view that talk about mental states is a kind of shorthand for talking about actual behaviour and dispositional behaviour and that, logically, this must be the case if we are to understand such language. However, full marks can be obtained for a detailed and precise account of **two** criticisms of logical behaviourism without further exposition of the view. These are likely to draw from:

- Paralysis: the mental states of the paralysed or comatose.
- Stoicism, non-behaviour.
- Successful pretence.
- Some mental states do not have behavioural manifestations, eg imaging.
- The inability to explain certain features of consciousness, eg qualia and/or intentionality.
- The non-explanatory nature of equating, eg pain with pain-behaviour and/or the view that mental states are used to explain behaviour rather than being explained (away) through behaviour.
- The difficulty of constructing hypothetical accounts of why a disposition is not actualised and/or the vagueness of behaviourist accounts of mental states.

Other relevant criticisms should also be rewarded.

- 7-9 Demonstrates detailed and precise knowledge and understanding of **two** criticisms of logical (philosophical) behaviourism.
- 4-6 Demonstrates either a range of knowledge but general and prosaic understanding of two criticisms of logical (philosophical) behaviourism, or narrow and detailed but partial knowledge of understanding, eg one criticism is developed but a second is omitted, unclear or unconvincing.
- 1-3 Demonstrates some knowledge and limited understanding of at least one criticism of logical (philosophical) behaviourism.
- 0 No relevant philosophical knowledge and understanding.

Selection and Application (9 marks)

Illustrations, or a single illustration covering two criticisms, might draw from accounts given by people emerging from a coma or who overcome some behavioural disability; successful actors; the subjective aspect of mental states; the aboutness of mental states; the difficulties of explaining why Adrian is not shouting, although he is angry, but would shout if ... 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 logical (philosophical) behaviourism.
- 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 logical (philosophical) behaviourism. Responses in this band may be characterised by detailed explanation and brief illustration.
- 1-3 Selects and applies at least one relevant point to provide a basic explanation and/or sketchy illustration of at least one criticism of logical (philosophical) behaviourism **or** some relevant points feature in a tangential approach to this issue. Responses in this band may be characterised by relevant explanation only, there is no attempt to illustrate.
- 0 No relevant philosophical points.

(b)	Assess the functionalist view of mental states.	<i>(32 marks)</i>
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Knowledge and Understanding (8 marks)

It is possible that some account of why functionalist theories developed in the first place will be given. This may involve a brief critique of dualism and/or a brief statement of the mind-body problem; an account of the significance of research into AI; versions of how functionalist theory departs from either behaviourism or the identity theory.

However, full marks can be obtained for a detailed and precise account of the functionalist approach to mental states in which:

- Emphasis is accorded to the role of mental states, the formal or causal role of the state, rather than to what mental states are, or to what intrinsic properties they possess.
- Analysis is focused on the functional role of the state as it interacts with other mental states or on the functional organisation of a given (conscious) structure.
- There will probably also be references to functional equivalence between different systems, eg through references to AI.
- Candidates may refer to different functionalist positions eg “machine”, “teleological”.

7-8 Demonstrates detailed and precise knowledge and understanding of the functionalist view of mental states.

4-6 Demonstrates either a range of knowledge but general and prosaic understanding or narrow and detailed but partial knowledge and understanding of the functionalist view of mental states.

- 1-3 Demonstrates some knowledge and limited understanding of the functionalist view of mental states.
- 0 No relevant philosophical knowledge and understanding.

Selection and Application (8 marks)

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

- The aims of functionalist theory and/or how the theory relates to other materialist positions on the mind-body problem. The strengths and weaknesses of the theory in comparison to behaviourism, the identity theory, etc.
- Illustrations of the significance of AI (with care taken not to overstate or simplify the functionalist position); examples of the Turing Test. Whether machines can think.
- Illustrations of a functionalist account of what is involved in the experience of sensations (eg pain) and how this relates to behaviour.
- Whether mental states can be exhaustively analysed in functional terms. The ‘Chinese Room’ and/or other examples of the difference between ‘real’ and ‘as if’ intelligence, understanding, intentionality, qualia, etc. The irreducibility of subjective features of mental events to objective physical processes.
- Functionalist responses to (some of) these issues eg teleology.

Or other relevant points.

- 7-8 Selects, or constructs relevant points and examples and applies these to provide a clear, detailed and precise illustrative analysis of the functionalist of mental states.
- 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 functionalist view of the mental states.
- 1-3 Selects and applies some relevant points to provide a basic analysis of the functionalist view of mental states **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 functionalism: the only plausible explanation of what the mind is and how it works must be physical; functionalism is an improvement on, eg behaviourism and/or identity theory. There may be some support for the view that consciousness can be replicated in numerous physical systems (AI and variable realisation). There may be support for a particular version of functionalism.
- An argument favouring an alternative to functionalism, eg property dualism, biological naturalism or eliminative materialism. Candidates may insist on the irreducible nature of mental properties and, following critical discussion, claim that functionalism cannot survive various criticisms or that it is compatible with (and, perhaps, best seen as) a form of property dualism; others may claim that the vocabulary of mental states is outmoded and that functionalism does not go far enough to exorcise mentality.

- 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 by evaluating some material and forming explicit 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.

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2

Total for this question: 50 marks

(a) Explain and illustrate how the problem of other minds arises. (18 marks)

Knowledge and Understanding (9 marks)

The problem of other minds will probably be clarified as:

- The problem of knowing what another person is thinking or feeling at a particular time.
- The problem of knowing whether others are minded at all, whether there are any mental states other than my own.

The reason it arises as a philosophical problem might be stated in a number of ways:

- Through the (alleged) characteristics of mental processes, particularly certainty and privacy (or privileged access) but qualia and intentionality might also be referred to.
- Solipsism and/or the consequences of ‘starting from one’s own case’, (eg the failure of analogous argument).
- The possibility of successful pretence: the contingent relationship between an ‘inner’ experience and its outward expression.
- The lack of any infallible means of confirming what (or whether) others are thinking.
- The possibility that others are not thinking things at all **or** the impossibility of proving that they are.

7-9 Demonstrates detailed and precise knowledge and understanding of how the problem of other minds arises.

4-6 Demonstrates either a range of knowledge but general and prosaic understanding, or narrow and detailed but partial knowledge and understanding of how the problem of other minds arises, eg an account which is accurately stated but brief and lacking depth and detail.

1-3 Demonstrates some knowledge and limited understanding of how the problem of other minds arises. Credit responses focused on the difficulties of determining *what* is minded (eg AI) in this band.

0 No relevant philosophical knowledge and understanding.

Selection and Application (9 marks)

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:

- A particular mental state, eg pain, embarrassment, grief, love, understanding, etc and the allegedly private and incorrigible nature of this state.
 - The possibility of stoical behaviour and/or successful pretence in relation to this experience so that, eg pain is experienced but not expressed or is expressed but not experienced.
 - The possibility that no others experience what/experience as, eg pain or that there are no grounds for knowing that others experience this.
- 7-9 Selects, or constructs a relevant example and applies this to provide a clear, detailed and precise illustrative analysis of how the problem of other minds arises.
- 4-6 Selects, or constructs at least one relevant example to provide a partial explanation lacking detail and precision as an illustrative analysis of how the problem of other minds arises. Responses in this band may be characterised by detailed exposition (eg of Descartes) and brief illustration.
- 1-3 Selects and applies an example to provide a basic explanation and/or sketchy illustration of how the problem of other minds arises **or** some relevant points feature in a tangential approach to the question (eg the focus is on what is minded). Responses in this band may be characterised by relevant explanation only, there is no attempt to illustrate.
- 0 No relevant philosophical points.

(b) Assess whether any form of dualism provides an acceptable account of the nature of mental states. *(32 marks)*

Knowledge and Understanding (8 marks)

There should be some attempt to distinguish between different dualist approaches to mentality, for example:

- Substance dualism: mind and body are different substances, mind is immaterial thinking ‘stuff’.
- Property dualism: mental phenomena possess properties which cannot be identified with/reduced to physical phenomena.

Narrow and detailed responses may be based on the problem of interaction and rooted in 17th century responses to the problem (occasionalism, parallelism).

Beyond this, the nature of mental states, consciousness, may be described:

- Through various theoretical approaches, eg Descartes, epiphenomenalism, dual aspect theory or approaches compatible with viewing mentality as supervening upon physical structures of a suitably complex nature.
- Through various qualities mind is seen to possess, eg transparency or certainty, privacy, intentionality, subjectivity/qualia, anomalousness, etc.

7-8 Demonstrates detailed and precise knowledge and understanding of arguments and theories relating to whether any form of dualism provides an acceptable account of the nature of mental states.

- 4-6 Demonstrates either a range of knowledge but general and prosaic understanding of arguments and theories relating to whether any form of dualism provides an acceptable account of the nature of mental states or narrow and detailed but partial knowledge and understanding of arguments and theories relating to whether any form of dualism provides an acceptable account of the nature of mental states. (Eg a treatment of substance dualism only.)
- 1-3 Demonstrates some knowledge and limited understanding of aspects of relevant arguments and theories relating to whether any form of dualism provides an acceptable account of the nature of the mental states.
- 0 No relevant philosophical knowledge and understanding.

Selection and Application (8 marks)

Some of the following or equivalent points will be raised and discussed:

- An exposition of different theoretical strands within dualism and/or of different dualist accounts of the properties of mental states (attributes of a substance, mere epiphenomena, properties which escape reduction, etc).
- Material might include an account of Cartesian doubt and the attributes of mind that emerge through this; a discussion of the phenomenal and/or subjective nature of our experience and ‘inner story’; illustrations of sensations, emotions, moods, imaging, intentions, the exercise of free will, etc together with an explanation of how they ‘fit’ into the account of mind offered by dualism; an account of the limitations of materialist explanations of mental phenomena, etc.
- Alternatively, discussion may take the form of a consideration of certain worrying questions. The most likely involve issues concerning the utility of dualism, whether it explains anything or furthers understanding of consciousness; how mind and body interact or whether there is anything outside of a unified materialist picture of what exists and how it behaves; solipsism and the problem of other minds, etc etc.
- The (mis)treatment of ‘mental’ phenomena by various materialist approaches might be raised in order to discuss/clarify perceived strengths and weaknesses of dualism.

- 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 whether any form of dualism provides an acceptable account of the nature of mental states.
- 4-6 Selects, or constructs some relevant points and examples to provide a partial analysis, either narrowly focused (eg on substance dualism and the problem of interaction) or lacking detail and precision, of arguments and theories related to whether any form of dualism provides an acceptable account of the nature of mental states.
- 1-3 Selects and applies some relevant points to provide a basic analysis of at least one dualist position concerning the nature of mental states **or** some relevant points feature in a tangential approach to the question.
- 0 No relevant philosophical points.

Interpretation and Evaluation (16 marks)

The argument in top band answers will refer explicitly to ‘a form of dualism’ – that is, it will be clear:

- which, if any, form of dualism is deemed plausible;
- how this form of dualism differs from other theories (dualist or physicalist);
- and why it is a plausible approach.

This is an issue which can attract assertion in the form of *general* agreement or disagreement with dualism. Mid-band answers will probably:

- Provide a general *argument* for dualism, eg in terms of the difficulties materialism faces in accounting for some aspects of ‘mental’ states (privacy, intentionality, qualia, etc), even where it is recognised that dualism also faces difficulties.
- Or a general *argument* against dualism as presenting a view of mind as some kind of ‘ghostly’ stuff, incompatible with a materialist conception of nature/having no place in nature and, which is, in some sense, useless.

They will answer the question without differentiating between dualist theories and/or theories compatible with dualism.

- 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 by evaluating material and forming explicit 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 with limited scope, depth and accuracy or poorly focused in relation to the specific question (eg only one dualist 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.

Theme: Political Philosophy

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3

Total for this question: 50 marks

- | |
|---|
| (a) Describe and illustrate two reasons why it might be desirable to restrict personal freedoms.
<p style="text-align: right;">(18 marks)</p> |
|---|

Knowledge and Understanding (9 marks)

The reasons provided will probably be 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 *either* through a positive account of when restrictions might be justified **or** through a negative account of how classical liberalism does not sufficiently restrict personal freedoms. The latter approach may introduce alternative political theories such as welfare liberalism, socialism, conservatism. The reasons may be drawn from:

- Paternalism: the concept of positive freedom provides the justification for interference in individual choices and a more coherent account of freedom and rational action. The inclinations and desires of the ‘lower self’ do not guarantee our long-term interests or well-being.
- There is a tension between unrestricted freedom for all and individual interest. How can I ensure that my freedom to pursue my interests will not harm your interests? This might be argued in the context of a social contract theory.
- The harm principle. The restriction accepted by classical liberals.
- Unrestricted freedom may be incompatible with a just and/or equal distribution of goods/property and/or may generate other problems (eg environmental ones). This might be argued by welfare liberals and/or socialists and/or utilitarians.
- Unrestricted freedom may be incompatible with political stability and/or the functioning of society which may require various constraints on the range of individual choices/values/goals that can be pursued in order to achieve social order and cohesion. This might be argued by conservatives.

Or any other reasonable point.

- 7-9 Demonstrates detailed and precise knowledge and understanding of **two** reasons why it might be desirable to restrict personal freedoms.
- 4-6 Demonstrates either a range of knowledge but general and prosaic understanding of **two** reasons why it might be desirable to restrict personal freedoms, or narrow and detailed knowledge and understanding of **one** reason (a second reason may be briefly referred to but undeveloped or blurred with the first).
- 1-3 Demonstrates some knowledge and limited understanding of reasons why it might be desirable to restrict personal freedoms.
- 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** reasons. Illustrations may draw from:

- The literature (eg the examples discussed in Chapter 5 of *On Liberty*).
- The impact of freedom and free markets on levels of inequality, injustice and/or other negative consequences.
- Social and moral issues in so far as they impact upon social order and cohesion (eg drug use, pornography).
- Examples of the potential for conflict between individual tastes, behaviours and self, group or social interests.
- Political issues in which some positive role is accorded to the state, eg compulsory education to 16, widening opportunities and more university places for under-represented groups.

These and/or other relevant illustrative points should be clearly related to the two reasons selected.

- 7-9 Selects, or constructs relevant examples and applies these to provide a clear, detailed and precise illustrative analysis of **two** reasons why it might be desirable to restrict personal freedoms.
- 4-6 Selects, or constructs at least one relevant example to provide a partial illustration, either narrowly focused and only illustrative of one reason or lacking detail and precision as an illustrative analysis of **two** reasons why it might be desirable to restrict personal freedoms. Generalised accounts blurring a number of criticisms together should be placed in this band as should responses characterised by detailed explanations and brief illustrations of the selected criticisms.
- 1-3 Selects and applies some relevant points to provide a basic explanation and/or sketchy illustration of at least **one** reason or some relevant points feature in a tangential approach to the question (eg there is a failure to focus the illustration on this issue or the illustration provided does not help to clarify the point being made). Responses in this band may be characterised by relevant explanation only, there is no attempt to illustrate.
- 0 No relevant philosophical points.

(b) Assess the view that liberalism attaches too much importance to individual freedom at the expense of other values. (32 marks)

Knowledge and Understanding (8 marks)

An account of liberal political philosophy might draw from Locke, Mill, Berlin, Hart, Rawls, Hayak, Nozick and others. The view of liberalism in the question will probably be developed stressing:

- The civil and political rights of individuals.
- A substantial private sphere of personal freedoms (including freedom of thought, speech and association).
- Minimal state interference: the state as a ‘neutral’ framework in which the plurality of individuals and groups pursues diverse interests and values.

Beyond this, and in order to advance discussion, it should be pointed out that there are divisions within liberalism concerning how to secure other values. Particularly, the distinction between ‘classical’ free-market liberalism (eg Mill, Hayek and Nozick) and welfare liberalism (eg Rawls, Dworkin).

- 7-8 Demonstrates detailed and precise knowledge and understanding of arguments and theories relating to the view that liberalism attaches too much importance to individual freedom at the expense of other values.
- 4-6 Demonstrates either a range of knowledge but general and prosaic understanding of arguments and theories relating to the view that liberalism attaches too much importance to individual freedom at the expense of other values, or narrow and detailed but partial knowledge and understanding of arguments and theories relating to the view that liberalism attaches too much importance to individual freedom at the expense of other values (eg only classical liberalism is outlined).
- 1-3 Demonstrates some knowledge and limited understanding of relevant arguments and theories relating to liberalism.
- 0 No relevant philosophical knowledge and understanding.

Selection and Application (8 marks)

Discussion could focus on whether liberalism provides adequately for a range of political goods, eg freedom, rights, justice, well-being or whether these are more likely to be obtained if more emphasis is placed on, eg community, obligation, duty. Some of the following or equivalent points will be raised:

- The classical defence of personal, civil and political freedoms: Mill’s arguments in defence of freedom of thought and expression and of experiments in living.
- More recent versions of classical liberalism or libertarianism (eg Hayek, Nozick). Liberty ‘rights’ trump other rights (eg equality). Individual freedom and minimal state intervention is the most important political value.
- The view that liberalism has supplied an ideological justification for capitalism and the pursuit of self-interest and/or that it emphasises competition and individualism rather than community or society. Socialist and/or communitarian criticism of liberalism to the effect that it does not yield genuine (positive) freedom.
- The attempt by welfare liberals (such as Rawls) to restrict inequality as part of a theory of justice.
- Utilitarian arguments for and against values of liberalism, eg support for the free market as better than, eg a planned economy at satisfying desires and preferences, grounding individual rights and maximising happiness; or the view that it is necessary for the state to intervene to supply public goods and/or to modify the worst excesses of unrestrained freedom.
- The view that commitment to liberal values (individual rights, personal freedom) is not a sufficiently ‘thick’ bond for society to work. Other values are necessary, eg obligation, duty, virtue, justice. The value attached to social and moral traditions by Conservatives.

- 7-8 Selects, or constructs relevant points and examples and applies these to provide a clear, detailed and precise analysis of the view that liberalism attaches too much importance to individual freedom at the expense of other values.
- 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 liberalism attaches too much importance to individual freedom at the expense of other values.

1-3 Selects and applies some relevant points to provide a basic analysis of the view that liberalism attaches too much importance to individual freedom at the expense of other values 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 in which it should be clear whether candidates:

- Accept the view that liberalism attaches too much importance to individual freedom at the expense of other values: it might be argued that, eg security, or social order and cohesion are more important than personal freedom; or that equality is more important; or that positive, rather than negative freedom has value and that the social conditions necessary for this are undermined by liberalism.
- Hold a middle ground, eg accepting that this view is true of classical liberalism but not of welfare liberalism, which clearly also stresses community, reason, fairness, justice, etc.
- Reject the view, eg because individual freedom, whether social or economic, delivers other values and wants. Rational autonomy is the basis of a free and just society and/or forms of coercion are counter-productive in a utilitarian sense.
- Some defenders of anarchy may reject the view on the grounds that liberals have not stressed freedom sufficiently.

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 by evaluating some material and forming explicit 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 or asserted with very little explanation, poorly developed, confused or may have limited relevance.

0-1 Little or no relevant philosophical insights.

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4

Total for this question: 50 marks

(a) Explain and illustrate two ways in which some individuals may justify a refusal to obey the State. (18 marks)

Knowledge and Understanding (9 marks)

The issue involves our duty to the State. (*Candidates may refer to the legitimacy of the State but should avoid turning the question into an issue of legitimate and illegitimate States.*) There could be references to theoretical difficulties of demonstrating a universal obligation to obey the State:

- Accounts of obligation rooted in a voluntary act of consent (as in social contract) have difficulty in explaining why those who do not consent should be obligated at all and/or the view that such accounts include the permanent possibility of dissent.
- Accounts of obligation in the utilitarian tradition may have little appeal to minorities whose interests and whose rights may be denied; other moral objections.
- The view that obligation represents our rational self interest may be seen as objectively true but as failing to motivate us to act – reason being less significant than emotion, desire, etc.
- The anarchist view that rational agents do not need to be told what to do and/or the view that the activities of the State are illegitimate.
- Marxist views that consent is ideological, manufactured hegemony (domination by consent) is a stronger form of power than force. The State does not act in the interests of all rational agents.

There could also be references to specific instances of where, for example, the State is seen to be acting illegitimately, eg by denying our natural rights; where it is not governing by consent; where laws are deemed to be unjust; where checks and balances on authority, such as a separation between legislature and executive, have been eroded; where its activities have extended into spheres where it has no authority (attempts to regulate private tastes and behaviour) etc. Or any other reasonable point.

- 7-9 Demonstrates detailed and precise knowledge and understanding of **two** ways in which some individuals may not accept an obligation to obey the State.
- 4-6 Demonstrates either a range of knowledge but general and prosaic understanding of **two** reasons why some individuals may justify a refusal to obey the State or narrow and detailed but partial knowledge and understanding, eg one way is developed but the second is omitted, blurred with the first, unclear or unconvincing.
- 1-3 Demonstrates some knowledge and limited understanding of aspects of at least **one** way in which some individuals may justify a refusal to obey the State.
- 0 No relevant philosophical knowledge and understanding.

Selection and Application (9 marks)

Illustrative examples may be hypothetical or may draw upon actual, contemporary or historical, cases of disobedience. This may be quite wide-ranging including individual refusals to comply (such as the pacifist refusal to fight) as well as civil disobedience on behalf of certain groups or in defence of certain issues (such as legalising cannabis, campaigns against animal testing, etc). There may also be illustration of more conceptual points, eg the proportion of non-voters in recent elections, situations where it does not seem prudent to comply, examples of State action where no consent has been obtained or where morality and/or rights are involved. The examples should clearly illustrate the specific reasons provided.

- 7-9 Selects, or constructs a relevant example or examples and applies these to provide a clear, detailed and precise illustrative analysis of **two** ways in which some individuals may justify a refusal to obey the State.
- 4-6 Selects, or constructs relevant points or examples to provide a partial explanation, either narrowly focused on one way or lacking detail and precision as an illustrative analysis of two ways in which some individuals may justify a refusal to obey the State. Responses in this band may be characterised by detailed explanation and brief illustration.
- 1-3 Selects and applies some relevant points to provide a basic explanation and/or sketchy illustration of at least **one** way in which some individuals may justify a refusal to obey the State or some relevant points feature in a tangential approach to the question (eg references to specific and allegedly illegitimate States). Responses in this band may be characterised by relevant explanation only, there is no attempt to illustrate.
- 0 No relevant philosophical points.

- (b) Assess whether the goal of distributive justice is compatible with protecting individual liberties and rights. *(32 marks)*

Knowledge and Understanding (8 marks)

The concept of distributive justice requires us to consider the ethics of how political goods or benefits are distributed. This includes the distribution of property but may also be taken to include the distribution of other desirable goods, eg opportunity, security, etc. There are competing views of what a just distribution of political goods might be based upon, eg universal human wants or needs, human rights, efforts and/or merits. This question will probably be disputed within liberalism (although other political ideologies may also be referred to):

- The classical liberal view includes property within an individual's sphere of protected rights: if this is accepted then the value of liberty gives us a notion of distributive justice compatible with capitalism and with high levels of inequality (generally, the more a 'desert' is stressed, eg property rights or effort, the less egalitarian the result).
- An alternative view is that unchecked and increasing levels of inequality are detrimental to liberty because, for example, this restricts opportunity and choice. If this is true, a just distribution of goods would imply a degree of egalitarianism and would require some intervention by the state to regulate markets and protect liberty and justice. (Property is not a protected individual or natural right).

- 7-8 Demonstrates detailed and precise knowledge and understanding of arguments and theories relating to whether the goal of distributive justice is compatible with protecting individual interests and rights.
- 4-6 Demonstrates either a range of knowledge but general and prosaic understanding or narrow and detailed but partial knowledge and understanding of arguments and theories relating to whether the goal of distributive justice is compatible with protecting individual interests and rights
- 1-3 Demonstrates some knowledge and limited understanding of relevant arguments and theories relating to whether the goal of distributive justice is compatible with protecting individual interests and rights.
- 0 No relevant philosophical knowledge and understanding.

Selection and Application (8 marks)

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

- Locke’s view that our natural rights include property rights. Locke’s arguments in defence of this: survival, labour, adding value through work. God gave the earth to the industrious.
- Nozick’s defence of classical liberalism (in response to Rawls). The attempt to impose any ‘patterned’ notion of justice is inconsistent with individual liberty. Recognising liberty means that we cannot restrict or interfere with property dealings.
- Utilitarian arguments. The free market is the most efficient means of producing and distributing goods and that this maximises happiness (this focuses less on the acquisition and more on the transfer of property but, again, there is limited scope for state intervention). Alternatively, utilitarian justifications for state intervention to lessen the impact of markets on inequality (a free market plus welfare state).
- There is considerable scope for discussion of utilitarian principles if a just distribution of ‘goods’ is extended to include, eg limbs, organs.
- Socialism: the free market is wasteful and destructive; it produces alienated individuals and extreme (and unjust) levels of inequality; a more equal distribution of goods is necessary in order to maximise liberty (positive freedoms).
- The attempt by welfare liberals, most notably Rawls, to argue for personal and political liberty as well as the amelioration of socio-economic inequality. The argument for regulating markets is based on the hypothetical contract rational agents would make under a veil of ignorance. According to Rawls, they would opt for equal rights to basic liberties, fair opportunities and for social inequalities to be arranged to the benefit of the least advantaged (ie an inequality is ‘just’ if it makes the least advantaged better off).

- 7-8 Selects, or constructs relevant points and examples and applies these to provide a clear, detailed and precise illustrative analysis of whether the goal of distributive justice is compatible with protecting individual interests and rights.
- 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 the goal of distributive justice is compatible with protecting individual interests and rights.
- 1-3 Selects and applies some relevant points to provide a basic analysis of whether the goal of distributive justice is compatible with protecting individual interests and rights 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:

- A just distribution of political goods is compatible with individual rights and freedoms **and** with inequality: this is because justice is based on desert and the effort of the industrious, for example, provides a moral basis for property rights. Neither the State nor any individual has a right to interfere with this.
- A just distribution of political goods is compatible with individual rights and freedoms **but not** with inequality; this is because inequality has a negative impact on liberty because it confers lasting advantages to some at the expense of others leading to discrimination and a lack of opportunity. Justice requires some restrictions on individual freedoms.
- If distributive justice and individual rights and freedoms are incompatible then which should take priority? This question may lead to a discussion of the values of different political ideologies in relation to justice, rights and freedom.

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 by evaluating some material and forming explicit 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 or asserted with very little explanation, limited and poorly developed or may have limited relevance.

0-1 Little or no relevant philosophical insight.

Theme: Philosophy of Science

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5

Total for this question: 50 marks

(a) Describe and illustrate **two** criticisms of the view that scientists are engaged in an attempt to falsify theories. *(18 marks)*

Knowledge and Understanding (9 marks)

Candidates will probably identify ‘the view’ as falsificationism and/or link it to Popper’s attempt to resolve/acknowledge the problem of induction (it is not possible to verify a scientific theory inductively, but it is possible to refute it). Science is, thus, portrayed as a rigorously critical activity involving scientists in attempts to falsify conjectures/hypotheses. However, this background knowledge may be left implicit and full marks can be earned for accurate descriptions of two criticisms of this view. These are likely to be selected from:

- This is not an accurate account of scientific practice. Science is paradigmatic and scientific activity is conventional rather than critical during ‘normal science’.
- It is not true that scientists reject theories when there is a problem of theory-data fit. These puzzles are characteristic of normal science and/or during normal science theories are immune from falsification.
- Given that certain odd results may be obtained through experimentation, it is more likely that the data will be discarded rather than the theory.
- Conjectures are contaminated by experience and by conceptual frameworks, and observations are constrained by commitments to paradigms as well as the interests of scientists, so the whole process is less objective and critical than Popper claims to be.
- Scientific theories are merely instruments for saving data and are underdetermined by observational data (which might fit a number of theories).
- This approach does not escape problems of induction: we provisionally accept theories which have survived attempts to refute them.
- The idea that the most we can have is conclusive refutation is impractical.

Any other reasonable point.

- 7-9 Demonstrates detailed and precise knowledge and understanding of **two** criticisms of the view that scientists are engaged in an attempt to falsify theories.
- 4-6 Demonstrates either a range of knowledge but general and prosaic understanding of **two** criticisms of the view that scientists are engaged in an attempt to falsify theories, eg points lack development, or narrow and detailed, but partial knowledge and understanding, eg of **one** relevant critical point.
- 1-3 Demonstrates some knowledge and limited understanding of at least **one** criticism of the view that scientists are engaged in an attempt to falsify theories. Critical points are likely to be vague and lack clarity.
- 0 No relevant philosophical knowledge and understanding.

Selection and Application (9 marks)

Both critical points should be illustrated although **one** illustration may be sufficient to illustrate **two** criticisms. Hopefully, illustrations will draw from developments and/or disputes in science, eg the commitment to convention may be illustrated by the reactions of a community of scientists to non-paradigmatic developments (for example, Velikovsky). This may involve alternative theories being stated (eg Feyerbend) but candidates should take care to illustrate as well as explain the point.

- 7-9 Selects, or constructs relevant examples or issues and applies these to provide a clear, detailed and precise illustrative analysis of **two** criticisms of the view that scientists are engaged in an attempt to falsify theories.
- 4-6 Selects, or constructs a relevant example or examples to provide a partial explanation, lacking detail and precision or narrowly focused, as an illustrative analysis of **two** criticisms of the view that scientists are engaged in an attempt to falsify theories. Responses in this band may deal with only one valid critical point or may be characterised by detailed explanation and brief illustration.
- 1-3 Selects and applies some relevant points to provide a basic explanation and/or sketchy illustration of at least **one** criticism of the view that scientists are engaged in an attempt to falsify theories **or** illustrations are provided which do not clarify the point being made. Responses in this band may be characterised by relevant explanation only, there is no attempt to illustrate.
- 0 No relevant philosophical points.

(b)	Assess the view that science is paradigmatic.	(32 marks)
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Knowledge and Understanding (8 marks)

The conception of a paradigm, and how this applies to science, should be clarified through an account of Kuhn's approach to scientific method:

- Scientific 'progress' is characterised as 'a series of peaceful interludes punctuated by intellectually violent revolutions'.
 - During the 'peaceful interludes', also referred to as 'normal science', scientific explanation is supported by successful exemplars capable of generating whole fields of interconnected scientific theories. Thus, it is paradigmatic.
 - Career scientists become committed to the exemplar and use it to generate applications, explanations, predictions: during 'normal science' problems are approached, conceptualised and resolved within the framework of the paradigm.
 - However, anomalies occur. If these begin to appear insoluble within the framework of the paradigmatic explanation doubt and conflict may beset the occupational culture of scientists.
 - Some will struggle to develop a new paradigm with better explanatory and predictive powers, some will resist.
 - This is the 'intellectually violent revolution'. A new paradigm emerges, incommensurate with the previous one, giving rise to a new set of puzzles and problems and a new period of 'normal science'.
- 7-8 Demonstrates detailed and precise knowledge and understanding of arguments and theories relating to the extent to the view that science is paradigmatic.
- 4-6 Demonstrates either a range of knowledge but general and prosaic understanding or narrow and detailed but partial knowledge and understanding of arguments and theories relating to the view that science is paradigmatic.

- 1-3 Demonstrates some knowledge and limited understanding of relevant arguments and theories relating to the view that science is paradigmatic.
- 0 No relevant philosophical knowledge and understanding.

Selection and Application (8 marks)

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

- Illustrative examples of paradigm shifts. (For example, creationism to the theory of evolution to the idea of cataclysmic developments).
 - The implications of this view for what science is, ie disciplines that are scientific are paradigmatic.
 - The implications of this view for notions of objective scientific knowledge and for notions of scientific development and the contrast with alternative theories, verification and particularly falsification which sees science as the height of objective, logical thought. This may also touch upon the realist/instrumentalist debate about what scientific theories do.
 - Science is not seen as a gradual process of accumulating objective knowledge. Emphasis is given to problem solving within conventional parameters, turbulence, new parameters and new problems. A new paradigm does not build upon a previous one.
 - Kuhn's defence of 'objectivity' is in terms of the simplicity, consistency, coherence, scope, accuracy, fertility, etc of a scientific theory rather than with objective truth. On this account there are no 'logical' reasons for a change of paradigm.
 - Some may question whether we have 'normal science' taking place in a vacuum without proven (in some sense) objective knowledge? If paradigm shifts involve a crisis of agreement, and are a matter of judgement rather than logic, on what basis is the judgement made? What is the epistemological status of the judgement?
- 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 paradigmatic.
- 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 paradigmatic
- 1-3 Selects and applies some relevant points to provide a basic analysis of the view that science is paradigmatic **or** some relevant points feature in a tangential approach to the question.
- 0 No relevant philosophical points.

Interpretation and Evaluation (16 marks)

Candidates may argue:

- That Kuhn has been (is) very influential. This may be supported by a consideration of other theories in the light of Kuhn's arguments, eg a dismissal of Popper's commitment to a scientific rationalism.
- That Kuhn has provided a way of viewing scientific theory and knowledge commensurate with other theories of knowledge – specifically the social processes involved in the construction of knowledge.
- On the other hand, Kuhn's 'evolutionary epistemology' requires an operational sense of progress and some may argue that the development of human knowledge demonstrates a sense of progress which is more than merely operational – theories evolve, through trial and error, because they fit reality (epistemic natural selection).
- It might also be argued that science is characterised by more disagreement than Kuhn suggests, ie that it is less paradigmatic than he suggests. This would allow for more non-revolutionary disputes within science and for multi-paradigmatic disciplines (eg in the social sciences) to be scientific.

- 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 by evaluating some material and forming explicit 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 or asserted with very little explanation, limited and poorly developed or may have limited relevance.
- 0-1 Little or no relevant philosophical insights.

NB The following marking notes are not prescriptive and do not constitute ‘model answers’: they are intended as an ‘aide-memoire’ for Examiners. Marks should be awarded in accordance with the levels-of-response marking criteria.

6

Total for this question: 50 marks

(a) Describe and illustrate two reasons for holding the view that at least some social sciences are scientific. <i>(18 marks)</i>

Knowledge and Understanding (9 marks)

The reasons selected are likely to reflect a particular view of what the methodology of natural science involves:

- Empirical research, hypothesis, experimentation, observation, systematic data collection, etc are employed in (at least some of) the social sciences.
- Similarly, at least some social sciences have attempted to establish causal relationships between socio-economic and/or psycho-physical phenomena (especially if psychological phenomena are treated as physical phenomena).
- If the goal of natural science is not the discovery of causal laws but the coherence and fertility of explanation, and subsequent prediction, then this is similar in at least some social sciences.
- Verification and falsification occur in the social sciences. It may also be claimed that some social sciences have become paradigmatic and others are pre-paradigmatic.

Equally, two reasons may emerge from ‘critical’ views of natural science and of the status of scientific knowledge. For example:

- Objective knowledge in both is a myth. Both natural and social scientists produce knowledge in specific historical, social economic and political climates. There is no ‘God’s eye view’ to be taken and what is studied, as well as how it is studied, are shaped by intellectual climates, career interests, economic climates, etc.

7-9 Demonstrates detailed and precise knowledge and understanding of **two** reasons for holding that at least some social sciences are scientific.

4-6 Demonstrates either a range of knowledge but general and prosaic understanding of **two** reasons for holding that at least some social sciences are scientific, or precise but partial knowledge and understanding, eg only one convincing reason is offered. At the top of this band a second reason may be stated briefly, not conveying detailed and precise understanding.

1-3 Demonstrates some knowledge and limited understanding of at least **one** reason for holding that at least some social science is scientific.

0 No relevant philosophical knowledge and understanding.

Selection and Application (9 marks)

Illustration may involve:

- An example, or examples, drawing from social science and illustrating the establishment of causal relationships (eg between supply and demand, brain states and behaviour, levels of social integration and behaviour, etc) and/or the confirmation or falsification of particular views and/or extent to which a particular view dominates a field of enquiry at certain times (behaviourism in psychology, liberalism in economics and politics).
- Examples of value-laden science, eg the funding of military research rather than medical research.
- Theoretical accounts (like Popper's Open Society and its Enemies) clarifying the processes involved in 'genuine' social science.

7-9 Selects, or constructs relevant examples and applies these to provide a clear, detailed and precise illustrative analysis of **two** reasons for holding that at least some social sciences are scientific.

4-6 Selects, or constructs some relevant examples to provide a partial explanation, lacking detail and precision or narrowly focused on **one** issue, as an illustrative analysis of **two** reasons for holding that at least some social sciences are scientific. Responses in this band may be characterised by detailed explanation and brief illustration.

1-3 Selects and applies some relevant points to provide a basic explanation and/or a sketchy illustration of at least one reason for holding that at least some social sciences are scientific **or** illustrations are provided but do not clarify the point being made. Responses in this band may be characterised by relevant explanation only, there is no attempt to illustrate.

0 No relevant philosophical points.

(b)	Assess the view that scientific theories are merely useful instruments.	<i>(32 marks)</i>
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Knowledge and Understanding (8 marks)

The instrumentalist holds that:

- Scientific theories are instruments designed to accommodate descriptions of, and predictions about, observable phenomena: a scientific theory is useful as an instrument if it allows us to understand, control, predict, etc the behaviour of observable phenomena.
- The instrumentalist, typically, distinguishes between observable phenomena and theoretical concept: theoretical concepts are seen as 'useful fictions' enabling calculations and predictions about observable phenomena.
- A theory is 'a rule, or set of instructions, for derivation of singular statements from other singular statements'. Different instrumentalist approaches to (high-level) theory include: it is useful but literally meaningless; it is a shorthand way of describing observable entities; its observable consequences may be seen to be true or false but there is no way of determining whether it is a true or false description of reality.
- This may be traced to idealist hostility to the view that human experience and/or reason can provide an insight into the reality behind appearances.

7-8 Demonstrates detailed and precise knowledge and understanding of debates concerning the view that scientific theories are merely useful instruments.

- 4-6 Demonstrates either a range of knowledge but general and prosaic understanding or narrow and detailed but partial knowledge and understanding of the view that scientific theories are merely useful instruments.
- 1-3 Demonstrates some knowledge and limited understanding of the view that scientific theories are merely useful instruments.
- 0 No relevant philosophical knowledge and understanding.

Selection and Application (8 marks)

Arguments for an instrumentalist view might include:

- Examples of non-observable theoretical concepts (eg gravitational field, friction, atomic particle, etc) as convenient fictions for describing the behaviour of observable entities or as ‘shorthand’ descriptions of observable phenomena.
- Illustrations of ‘pessimism’ concerning theory: that is, as many theories in the history of science have turned out to be false it is likely that current theories will turn out to be false. Whereas theoretical concepts are replaced (making it unlikely that they were ever descriptions of reality – and true or false in this sense) knowledge concerning observable entities has increased. This data is all that matters.
- The under-determination of theory by data: numerous and opposing theories are compatible with observed data. The theories we (presently) accept are simply those that have enjoyed predictive success.
- The world investigated by science is a world partly constituted by the minds of scientists who study it.

On the other hand:

- Realists hold that scientific theories describe reality and are judged true or false in respect of this. Scientific theories are getting better at describing reality – this is how science ‘advances’.
- Realism conforms with the belief that an ‘external’ world of physical objects exists independently of human action and consciousness. In scientific realism, unobservable entities like protons and electrons exist, and they exist independently of our knowledge of them.
- Indeed it is through their existence that scientific errors and scientific ignorance, in relation to the way the world really is, are both possible.
- The activity of gaining scientific knowledge involves discovery not invention.
- Non-realism in science is inconsistent with the scientist’s concern for truth and falsity – instrumentalism is more concerned with whether a theory is able to make successful predictions than it is with truth and falsity.
- The success of science would be ‘miraculous’ if scientific theories did not describe reality.

- 7-8 Selects, or constructs relevant points and examples and applies these to provide a clear, detailed and precise illustrative analysis of debates concerning the view that scientific theories are merely useful instruments.
- 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 the view that scientific theories are merely useful instruments.

1-3 Selects and applies some relevant points to provide a basic analysis of debates concerning the view that scientific theories are merely useful instruments **or** some relevant points feature in a tangential approach to the question.

0 No relevant philosophical points.

Interpretation and Evaluation (16 marks)

The view may be strongly supported. Even some realists (like Popper) acknowledge it as ‘the official view’ (with the rider that ‘few ... realise that they have accepted a philosophical theory’). Progress consists in developing instruments, theories and concepts, with predictive success and explanatory power – not in any movement towards a true depiction of reality.

Against this Popper argues that ‘it hardly makes sense’ to argue that we submit an instrument to tests designed to refute it. So “instrumentalism ... is unable to account for the pure scientist’s interest in truth and falsity”. Theories do not simply describe observable phenomena – sometimes they lead to the discovery of new kinds of observable phenomena. This is not a ‘happy accident’ (the ‘no miracle’ view). Scientific progress consists in producing increasingly accurate and complex descriptions of the (largely invisible) world.

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 by evaluating some material and forming explicit 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 or asserted with very little explanation, limited and poorly developed or may have limited relevance.

0-1 Little or no relevant philosophical insights.