



General Certificate of Education

Philosophy 5171/6171

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

Mark Scheme

2008 examination – June series

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Theme: Philosophy of Mind

1

Total for this question: 50 marks

- (a) Describe and illustrate what philosophers mean by qualia and explain the significance of this concept. (18 marks)

Knowledge and Understanding (9 marks)

Candidates are likely to provide a brief exposition of the view that mental states possess certain features, including qualia, distinguishing them from physical states. This may be necessary in order to draw out the *significance* of qualia, eg as demonstrating that mental states are irreducible. Top band answers should provide a detailed and precise account of what is meant by qualia and why it is a significant concept. This is likely to include some of the following points:

- qualia are the subjective, phenomenological, features of mental states/conscious experience;
- the 'raw feel' of a conscious experience;
- the 'what it is like to', for example, feel pain, grief, joy, relief or see a sunset, taste a lime, be tickled, etc. The yumminess of yum, the yukiness of yuk;
- there may be references to the perspectival aspect of subjectivity – the 'what it is like' to be me.

The concept might be thought to be significant for different reasons, for example:

- this subjective feature of mentality/conscious experience cannot be reduced to the objective – so presenting a problem for materialist theories of the mind. Purely physical things do not have phenomenological experience; there is nothing which it is like to be a neuron (this is the most likely response);
- however, it might also be suggested that there is an epistemological problem in moving from subjective conscious experience to objective knowledge – or vice versa – particularly if subjective conscious experience is held to be the starting point for philosophical analysis or (as in the above point) objective knowledge is held to be exhaustive.

- 7 – 9** Demonstrates detailed and precise knowledge and understanding of what qualia means and why it is a significant concept.
- 4 – 6** Demonstrates either a general and prosaic understanding of what philosophers mean by qualia (eg the concept is partly blurred with intentionality) or narrow and detailed but partial knowledge and understanding (eg the concept is described accurately but the account of why the concept is significant is very limited or confused).
- 1 – 3** Demonstrates some knowledge and limited understanding of what is meant by qualia (eg there is some recognition that the concept is connected to subjectivity) and of why the concept is significant.
- 0** No relevant philosophical knowledge and understanding is demonstrated.

Selection and Application (9 marks)

Illustrations, or a single illustration, may be given. Any number of brief illustrations could be employed to illustrate the concept itself, eg the sickly sweetness of sugared coffee or the harsh bitterness of coffee without sugar *but*, on their own, these are unlikely to illustrate the significance of the concept. In order to do this candidates are likely to draw from the literature on, for example, inverted qualia (the inverted colour spectrum); absent qualia (what it is like to be a bat, a brilliant scientist raised in a black and white room, zombies on twin earth, China Mind, etc)

- 7 – 9** Selects or constructs at least one relevant example and applies this to provide a clear, detailed and precise illustrative analysis of qualia. The example(s) provided illuminate the concept *and* its significance.
- 4 – 6** Selects or constructs at least one relevant example to provide a partial illustration of qualia either because the illustration provided is not employed to draw out the significance of the concept or because the illustration is brief and undeveloped, lacking detail and, perhaps, precision. Responses at the bottom of this band may be characterised by detailed explanation and very brief illustration.
- 1 – 3** Selects and applies at least one relevant point to provide a sketchy illustration of qualia (eg the example used is vaguely connected to qualia) *or* explanation of the concept is good but no illustration is offered. Answers at the bottom of this band may consist of vague exposition only.
- 0** No relevant philosophical points are made.

(b) Assess whether functionalist explanations provide an adequate account of mentality. (32 marks)

Knowledge and Understanding (8 marks)

Candidates will probably locate their answers within machine/computational functionalism but the best answers will recognise at least one development in functionalism since the 1960s (eg psycho-functionalism, homuncular functionalism, teleological functionalism) or at least point out that all varieties of functionalism share certain features in common. 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 and/or versions of how functionalist theory departs from/improves upon 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:

- mental events are to be identified in terms of the causal role they play in the functioning of a system;
- emphasis is accorded to the formal or causal roles of mental states, to what mental states do rather than to what mental states are or to what intrinsic properties they possess. Multiple realisation;
- analysis is focused on the states and/or perceptual inputs which, typically, produce a given mental state and the states and/or behavioural outputs which, typically, are produced by a given mental state;
- 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 or functional isomorphism between different systems, eg through references to AI.
- 7 – 8** Demonstrates detailed and precise knowledge and understanding of functionalist approaches to and explanations of mentality. Full marks can be earned by responses which recognise more than one type of functionalist explanation; very good accounts of machine or computational functionalism only should be placed at the bottom of this band.
- 4 – 6** Demonstrates either a range of knowledge but general and/or prosaic understanding of functionalist approaches to and explanations of mentality (eg positions are listed rather than developed) or narrow and detailed but partial knowledge and understanding of functionalist approaches to and explanations of mentality (eg an approach that provides some detail about machine functionalism).
- 1 – 3** Demonstrates basic knowledge and limited understanding of aspects of functionalist approaches to and explanations of mentality.
- 0** No relevant philosophical knowledge and understanding is demonstrated.

Selection and Application (8 marks)

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

Strengths:

- particular strengths and weaknesses of functionalist theory in comparison to behaviourism, the identity theory, etc. For example, the chauvinism of the identity theory; the non-explanatory nature of behaviourism;
- illustrations of the early significance of AI (with care taken not to overstate or simplify the functionalist position); examples of the Turing Test;
- illustrations of functional equivalence or isomorphism.

Weaknesses:

- whether functionalism is too liberal. Is functionalism committed to ascribing mentality to physical systems/structures that do not possess it?
- illustrations of absent qualia (eg China Mind) and systems that lack intentionality (eg the Chinese Room);
- whether mental states can be exhaustively analysed in functional terms;
- illustrations of functional equivalence and mental difference (eg inverted qualia);
- the alleged irreducibility of subjective features of mental events to objective physical processes;
- responses to these criticisms.

- 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 relating to whether functionalist explanations provide an adequate account of mentality.
- 4 – 6** Selects, or constructs, some relevant points and examples to provide a partial analysis, either narrowly focused (eg on the Chinese Room) or lacking detail and precision (eg the point of arguments included isn't clear) of arguments and theories relating to whether functionalist explanations provide an adequate account of mentality. Answers at the bottom of this band may exhibit both tendencies.

1 – 3 Selects and applies some relevant points to provide a basic analysis of at least one issue concerning functionalism **or** some relevant points feature in a tangential approach to the question (eg the focus is on materialism generally).

0 No relevant philosophical points are made.

Interpretation and Evaluation (16 marks)

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

- A balanced argument: the position improves on other reductive materialist positions but still faces a problem when dealing with the subjective aspects of mental states.
- An argument for 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; moreover, there are responses to the main arguments against functionalism (eg zombies might be conceivable but aren't possible, the more obscure thought experiments against functionalism don't work against recent versions of the theory and/or qualia don't exist as subjective entities, Searle misrepresents or underestimates AI, etc.) There may be some support for a liberal approach to mentality.
- An argument against functionalism, eg an insistence on the irreducible nature of mental properties and/or the claim that functionalism cannot survive various criticisms; alternatively, some may claim that functionalism doesn't 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 judgments or summaries in relation to the question: responses in this band may 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 is demonstrated.

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2

Total for this question: 50 marks

(a) Describe and illustrate **two** reasons for rejecting solipsism.

(18 marks)

Knowledge and Understanding (9 marks)

Candidates are likely to briefly define solipsism, for example as the view that 'I' am the only minded being and/or that 'I' can have no knowledge of minds other than my own and/or that nothing exists outside of my mind. They may also explain how the issue of solipsism arises from certain, generally Cartesian, notions of the characteristics of mental states, for example radical privacy and incorrigibility.

Two reasons for rejecting solipsism might be drawn from:

- it is absurd or unbelievable; it is not pragmatic to believe this, it doesn't accord with our experience, and/or there must be something wrong in the reasoning that leads to its possibility;
- if the reasoning is held to include the view that there is only a contingent relationship between an 'inner' experience and its outward expression, this might be denied by behaviourists. Argument from analogy;
- identity theorists might deny reasoning based on the privacy of mental experiences;
- if a solipsist says 'I' she must be differentiating herself from others, but if there are no others how is this possible? In what sense can she claim an experience as hers?
- could a solipsist say 'I'? Could she identify her pain? How would she learn the meaning of the word pain? Could pain be the name of a private experience in a private language?
- the concept of a person is logically primitive: we have the concept before we are able to self-ascribe mental states; self-ascription is dependent on the ability to other-ascribe;
- the experience of certain emotions is dependent upon others (shame, pride). Man is a social being, selves are social.

Or other reasonable point.

7 – 9 Demonstrates detailed and precise knowledge and understanding of two reasons for rejecting solipsism.

4 – 6 Demonstrates either a general and prosaic understanding of two reasons for rejecting solipsism (eg two reasons are presented but detail and precision may be lacking) or narrow and detailed but partial knowledge and understanding (eg one reason is described accurately but a second is omitted, poorly expressed or confused).

1 – 3 Demonstrates some knowledge and limited understanding of at least one reason for rejecting solipsism (eg there is some recognition that the concept is problematic and some description of how I can know there are others).

0 No relevant philosophical knowledge and understanding is demonstrated.

Selection and Application (9 marks)

Illustrations, or a single illustration employed to make two points, may be given. Any number of brief illustrations could be employed to illustrate alternatives to dualism: the notion of a category mistake and of, eg intelligence as a series of performances; the view that mental events like irritation are brain processes, etc. However, candidates' are likely to draw from the literature, for example Sartre's account of emotions or Wittgenstein's private language argument.

- 7 – 9** Selects or constructs at least one relevant example and applies this to provide a clear, detailed and precise illustrative analysis of two reasons for rejecting solipsism. The example(s) provided illuminate the concept *and* why it should be rejected.
- 4 – 6** Selects or constructs at least one relevant example to provide a partial illustration of two reasons for rejecting solipsism either because the illustrations provided are not employed to reject solipsism or because illustrations are brief and undeveloped. Responses at the bottom of this band may be characterised by detailed explanation and very brief illustration (OR only one reason is illustrated).
- 1 – 3** Selects and applies at least one relevant point to provide a sketchy illustration of at least one reason for rejecting solipsism *or* explanation of the reason is good but no illustration is offered. Answers at the bottom of this band may consist of vague exposition only.
- 0** No relevant philosophical points are made.

(b) Assess whether it is overly restrictive to hold that only human beings can be persons.
(32 marks)

Knowledge and Understanding (8 marks)

A relevant knowledge-base will address some of the following issues:
Theories related to personhood:

- a person is a Cartesian compound of body and soul;
- a person is that which has a coherent psychological narrative;
- the concept of a person is logically primitive – it is that to which both psychological and physical predicates apply;
- a person is any being with the capacity to enjoy a range of psychological attributes.

Attributes of persons:

- a thinking thing, capable of rational thought, reflective about their own experiences, feelings and motives as well as those of others;
- one who is self-aware and/or who possesses awareness of self as a continuing subject of experience, able to form goals and projects;
- one whose distinctiveness is created through choices, goals, actions and reactions, etc
- one who shapes themselves and is responsible, accountable and possesses rights in virtue of this;
- one who is a language user, able to communicate meanings and/or a social being, one whose sense of self emerges in and is created through relationships with others;
- one who possesses a subjective life.

Some of the above points may be implicit in candidates' responses.

- 7 – 8** Demonstrates detailed and precise knowledge and understanding of the concept of a person.
- 4 – 6** Demonstrates either a range of knowledge but general and/or prosaic understanding of the concept of a person (eg points are listed rather than developed) or narrow and detailed but partial knowledge and understanding of the concept of a person (eg an approach that provides a detailed account of the Cartesian view.)
- 1 – 3** Demonstrates basic knowledge and limited understanding of aspects of the concept of a person.
- 0** No relevant philosophical knowledge and understanding is demonstrated.

Selection and Application (8 marks)

Depending on the approach taken, some of the following, or equivalent, points could feature in discussions:

- it would be legitimate for candidates to start by questioning whether the possession of attributes identified is a matter of *kind* (or species) or a matter of *degree*;
- to the extent that we can speak of complex and simple persons, is it overly liberal to include some non-human animals as simple persons? If we don't, what are the consequences for diminished humans? Does it matter? Is there a moral dimension to this debate? Sustainable relations and concept application;
- this might involve a discussion of sense and reference and/or a discussion of the degree to which humans, animals and machines possess relevant attributes;
- if being a person is a matter of degree then some human beings will not qualify and some non-humans might qualify as persons – personhood is dependent upon the biological/physical capacity to realise/enjoy certain psychological attributes but the list of attributes is open-ended and personhood is contingent upon whichever biological/physical systems qualify as possessing these attributes and to what extent;
- the charge of liberalism and why/to what it might be applied. Zombies aren't persons but are machines zombies? Are some non-human animals sufficiently complex to qualify as persons? If we don't accept that they are, are we being chauvinistic? Alternatively, are we merely acknowledging that all of the persons we know are humans?

More theoretical approaches might question:

- whether personhood requires something like a 'ghostly' rational mind or soul and whether non-human animals possess these; whether anything exhibiting behaviour of a suitably complex variety might satisfy the criteria of personhood; whether complex mental processes are strictly identical to human brain processes; whether, in principle, artificially intelligent systems could (do?) satisfy the criteria of personhood.

- 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 relating to whether it is overly restrictive to hold that all persons are human beings.
- 4 – 6** Selects, or constructs, some relevant points and examples to provide a partial analysis, either narrowly focused (eg on AI) or lacking detail and precision (eg points are listed rather than developed) of arguments and theories relating to whether it is overly restrictive to hold that all persons are human beings. Answers at the bottom of this band may exhibit both tendencies.

1 – 3 Selects and applies some relevant points to provide a basic analysis of at least one issue concerning personhood **or** some relevant points feature in a tangential approach to the question (eg the focus is on mind generally).

0 No relevant philosophical points are made.

Interpretation and Evaluation (16 marks)

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

- humans are persons no non-humans are persons;
- some humans are not persons but no non-humans are persons;
- most humans are persons and so, too, are some animals but not machines;
- most humans are persons and so, too, are some animals, aliens and machines.

The position adopted should be supported by the points, evidence, concepts and theories selected for discussion *and* related to the issue of chauvinism/liberalism (whether we should restrict our application of the concept to humans or be more catholic).

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 judgments or summaries in relation to the question: responses in this band may 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 is demonstrated.

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Theme: Political Philosophy

3

Total for this question: 50 marks

(a) Describe and illustrate **two** features of socialism.

(18 marks)

Knowledge and Understanding (9 marks)

There could be some background discussion of what might count as socialism, eg whether western European social democratic parties/states should be included as well as Marxist-Leninist interpretations (although the latter are likely to be stressed). The question might be addressed in two ways, *either* through a socialist critique of existing social, economic and political arrangements *or* through an attempted outline of socialism in practice. Some candidates might combine both.

The former approach might stress:

- a critique of capitalism: that it leads to competitive individualism, rather than communal well-being, and alienation from others as well as from the products of one's labour; it creates and satisfies false needs; it leads to class divisions and conflict, the domination and exploitation of the proletariat by the bourgeoisie; it leads to injustices in the distribution of income and wealth, concentration, polarisation and pauperisation; it contains the seeds of its own destruction.

The latter approach might stress:

- that socialism is a stage in history (prior to the establishment of communism) in which the state/party has a significant role in human social and economic affairs; state ownership of the means of production; state planning of the economy (what is produced, how much is produced, price fixing, full employment, etc); a more equal distribution of income and wealth (which can be interpreted in different ways but communal interests, meeting needs, promoting positive freedom might be stressed); democratic elections of officials responsible for economic planning; an end to class divisions and alienation in its various forms; man is viewed as a social animal.

Some candidates may identify more contemporary trends, for example a movement towards market socialism or arguments in favour of worker control socialism.

7 – 9 Demonstrates detailed and precise knowledge and understanding of **two** features of socialism. Both features are clearly stated and accurately described.

4 – 6 Demonstrates either a range of knowledge but general and prosaic understanding of **two** features of socialism (eg two features are present in an account which lists or blurs several together) or narrow and detailed but partial knowledge and understanding, eg one feature is clear and developed but a second is omitted, unclear or unconvincing. Answers in this band may blur socialism and welfare liberalism.

1 – 3 Demonstrates some knowledge and limited understanding of at least one feature of socialism. In this band the feature or features may be vaguely stated so that, for example, they are shared by non-socialists (eg a dislike of inequality).

0 No relevant philosophical knowledge and understanding is demonstrated.

Selection and Application (9 marks)

Depending on the approach taken, illustrations, or a single illustration covering two features, might draw from evidence of worker exploitation, polarisation and pauperisation (nationally or globally); conflicts of interest, strikes, redundancies, restructuring, etc; the alienating nature of mundane, deskilled work and/or of the production of false needs; actual examples of state ownership, control and planning; the promotion of communal interests, 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** features of socialism. The example(s) provided illuminate the features identified.

4 – 6 Selects or constructs at least one relevant example to provide a partial explanation of **two** features of socialism either because detail and precision is lacking or because only one way is identified and illustrated. Responses in this band may be characterised by detailed explanation and very 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 feature of socialism. Answers at the bottom of this band may consist of vague exposition only with no attempt made to illustrate a feature.

0 No relevant philosophical points are made.

(b) Assess how the limits of our political obligations to the state might be defined. (32 marks)

Knowledge and Understanding (8 marks)

The question of political obligation concerns how an individual/collection of individuals, originally free, comes to be obligated or bound to obey the laws and commands of the state or, perhaps, bound to promote some notion of the common good. This may be presented as a central question facing liberal philosophers, although the focus on 'limits' could be used to introduce other political theories.

The notion of consent is likely to be widely employed as is the idea of a social contract:

- a concept attempting to ground the legitimacy of the state, the justness of its actions, etc, in the consent of the governed; the legitimate political obligations of individuals are grounded in a voluntary act of consent or legitimate political obligations are those that rational individuals would consent to were they to be placed in an 'original position' or to the various dimensions of tacit consent (an individual hasn't left, they have participated, they have benefited, etc);

- there may be some reference to the condition of mankind in a 'state of nature'. For example, in a state of nature there is a war of all against all in which life is 'nasty, brutish and short' (Hobbes); in a state of nature men live together according to reason, in perfect freedom and equality without superiors (on earth) to judge them (Locke). This may be employed to outline the nature and extent of the political obligations following the contract;
- additionally there could be references to non-liberal accounts of the relationship between the individual and the state: those stressing some notion of the social or communal nature of man (eg Rousseau, Marx) or that the individual is 'post-social' rather than 'pre-social' in the sense that his duties and obligations are pre-contractual (as in conservatism).

Such material might be employed to establish the notion of *legitimate* political obligations before moving on to an account of how these might be limited.

7 – 8 Demonstrates detailed and precise knowledge and understanding of arguments and theories relating to how the limits of our political obligations to the state might be determined.

4 – 6 Demonstrates either a range of knowledge but general and prosaic understanding of arguments and theories relating to how the limits of our political obligations to the state might be determined or narrow and detailed but partial knowledge and understanding of arguments and theories relating to this question (eg the focus is solely upon one or two versions of the social contract).

1 – 3 Demonstrates basic knowledge and limited understanding of aspects of arguments and theories relating to how the limits of our political obligations to the state might be determined.

0 No relevant philosophical knowledge and understanding is demonstrated.

Selection and Application (8 marks)

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

- there are very few limits: our obligation to obey sovereign power is virtually unconditional (Hobbes); our obligation to the sovereign is limited only if the sovereign is unable to meet their side of the contract and our security is threatened;
- surely, however, our legitimate obligations are limited by the type of state that emerges: rational individuals would not consent to a dictatorship, tyranny or totalitarian state;
- perhaps we can only be said to possess obligations if we have a guaranteed right of dissent;
- given that government is only necessary to remedy certain inconveniences that occur in the state of nature, and obligation to authority (power) never extends beyond its function of protecting or maintaining the common good (Locke), we can derive the limits of our political obligations from this;
- other versions of how obligation is limited by the maintenance of just social relationships and the good for man, eg utilitarian notions of utility or welfare;
- moral duties over-ride political obligations: acts of judgment are permanently necessary;
- examples may be provided of laws deemed illegitimate or unacceptable *and/or* of governments deemed to be acting illegitimately (by interfering in a private sphere of life, creating a nanny state, etc);
- are foreign, temporary, residents politically obligated and if not what about outsiders, the marginalised and/or malcontent? When is treason, civil disobedience, conscientious objection, a refusal to comply, etc justified?

- 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 relating to how the limits of our political obligations to the state might be determined.
- 4 – 6** Selects, or constructs, some relevant points and examples to provide a partial analysis, either narrowly focused (eg on Locke) or lacking detail and precision, of arguments and theories relating to how the limits of our political obligations to the state might be determined.
- 1 – 3** Selects and applies some relevant points to provide a basic analysis of at least one aspect of this issue **or** some relevant points feature in a tangential approach to the question (eg the focus is on justifying obligation rather than determining the limits of it).
- 0** No relevant philosophical points are made.

Interpretation and Evaluation (16 marks)

A range of argumentation is possible. For example:

- some might question whether there is any such thing as a political obligation – eg it might be argued that the state is unnecessary or illegitimate and that we can't be obligated to it;
 - it might be argued that views about the limits of our political obligations depend on how the original position is stated/the state of nature is described – thus, if Hobbes view is accepted, there are virtually no limits whereas, if Locke's view is accepted, our natural rights set the limits of our obligation;
 - it could be argued that where the common good or general welfare or general will is not being promoted then we are not obligated to comply;
 - it could be argued that the notion of consent is a fiction or myth, that most citizens, if asked, would not be able to provide an account of what they've consented to and/or that individuals haven't consented to anything. This might lead to an alternative view of what obligation is and of how it might be limited;
 - some might suggest that duties and obligations to the state are pre-contractual, rooted in our social being, and limited only by assessments of the decency or indecency of states regarding the quality of life provided.
- 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 judgments or summaries in relation to the question: responses in this band may 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 (eg the focus is on obligation rather than its limitations).
- 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 is demonstrated.

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4

Total for this question: 50 marks

(a)	Describe and illustrate two ways in which individuals benefit from being politically organised in a state.	<i>(18 marks)</i>
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Knowledge and Understanding (9 marks)

Two ways in which individuals benefit from being politically organised in a state might be drawn from different versions of what life is like in a state of nature. For example:

- Hobbes' view that: the state of nature is completely lawless, without morality, without justice and without restrictions on liberty such that there is a 'war of every man against every man'. So two ways in which we might benefit could be drawn from the provision of laws/regulation of conduct; notions of right and wrong, duty and obligation; notions of fairness, just rewards and deserts, and the enforcement of such; security, protection and a longer and more pleasant, civilised existence;
- Locke's view that there is a law of nature in the state of nature that rational, equal and independent individuals' ought to respect. However, there are inconveniences including the lack of an authoritative interpretation of natural law, the lack of any impartial judges and the lack of any power to enforce the law. So two ways in which we might benefit could be drawn from the provision of authority, power and honest brokerage.

Other reasonable answers should also be rewarded, for example the view that we are social beings rather than isolated individuals or that our identities, our roles, duties and obligations are given in the social context in which we function.

No marks are available for evaluative accounts of how we do *not* benefit (loss of rights, freedoms, etc) although some grasp of how we do might be implicit in such accounts.

7 – 9 Demonstrates detailed and precise knowledge and understanding of **two** ways in which individuals benefit from being politically organised in a state.

4 – 6 Demonstrates either a range of knowledge but general and prosaic understanding of **two** ways in which individuals benefit from being politically organised in a state, eg several ways are blurred together, or narrow and detailed but partial knowledge and understanding, eg one way is developed but a second is omitted, unclear or unconvincing.

1 – 3 Demonstrates some knowledge and limited understanding of at least one way in which individuals benefit from being politically organised in a state.

0 No relevant philosophical knowledge and understanding is demonstrated.

Selection and Application (9 marks)

It is probable that candidates will develop illustrations around notions of civility, morality, justice, social order and cohesion. These may be drawn from fiction (including philosophical descriptions of life in a state of nature) such as literary or film visions of anti-utopias or through attempts to imagine unrestricted freedom. Thus, points might be illustrated negatively. Positive illustrations might draw from any area of life in which we might be said to benefit from political organisation, eg security, recourse to the criminal justice system, welfare provision, the use of pooled resources to respond to emergencies, 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** ways in which individuals benefit from being politically organised in a state. The example(s) provided illuminate the ways identified.
- 4 – 6** Selects or constructs at least one relevant example to provide a partial explanation of **two** ways in which individuals benefit from being politically organised in a state either because detail and precision is lacking or because only one way is illustrated. Responses in this band may be characterised by detailed explanation and very 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 way in which individuals benefit from being politically organised in a state. Answers at the bottom of this band may consist of vague exposition only with no attempt made to illustrate a way in which we benefit from political organisation.
- 0** No relevant philosophical points are made.

(b)	Assess the view that freedom is the absence of law.	(32 marks)
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Knowledge and Understanding (8 marks)

The focus is on the tension between law and liberty – and the ‘view’ could be located within different philosophical traditions, for example:

- Hobbes’ ‘right of nature’ – only in the state of nature are we at liberty to do anything we like, law limits our freedom;
- Mill’s, and others, classical liberal emphasis on negative freedom and, given that we possess liberty in the absence of constraint, the view that there should be a private sphere of life in which the law should not intervene and in which we are free to think, say and do as we please;
- utopian or anarchist scepticism about law as an unethical and unnecessary form of human relation.

Depending on how the question is interpreted, there may be references to different conceptions of freedom:

- negative freedom: freedom from restraint;
- positive freedom: freedom to act/participate/function/flourish, etc.

Law – or positive law – should be interpreted broadly as:

- rules and/or principles necessitating (making obligatory or prohibiting) actions and, perhaps, backed by moral force, social function or utility, and sanctions.

- 7 – 8** Demonstrates detailed and precise knowledge and understanding of arguments and theories relating to the view that freedom is the absence of law.
- 4 – 6** Demonstrates either a range of knowledge but general and prosaic understanding of arguments and theories relating to the view that freedom is the absence of law *or* narrow and detailed but partial knowledge and understanding of arguments and theories relating to this question (eg the focus is solely on Mill).
- 1 – 3** Demonstrates basic knowledge and limited understanding of aspects of arguments and theories relating to the view that freedom is the absence of law.
- 0** No relevant philosophical knowledge and understanding is demonstrated.

Selection and Application (8 marks)

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

- ‘extreme’ versions of negative freedom: descriptions of an original position or ‘state of nature’ in which we are all at liberty to do whatever we deem necessary to preserve ourselves in the war of all against all;
- but in this state we are free - we have ‘the natural right of liberty’ - but not safe: it is necessary to restrict freedoms and where law interferes people are (rightfully) not at liberty because ‘the liberties of subjects depend on the silence of the law’;
- less harsh, Lockean, versions of the original position, the perfect freedoms we enjoy and the inconveniences we suffer;
- Law, in remedying this, has an important role but cannot/should not remove our freedoms, which are natural, God-given, possessed by all rational, autonomous individuals. The liberal insistence that such liberties are rights;
- examples may be provided of laws deemed illegitimate or unacceptable *and/or* of governments deemed to be acting illegitimately (by interfering in a private sphere of life, creating a nanny state, etc) There is a private sphere of life in which we are rightfully at liberty and which ought to be characterised by the absence of law;
- the alternative view that freedom depends on law (eg that some freedoms are constituted and regulated by the law);
- the connection between autonomy and self-development and the tension in some liberal positions (eg Mill) concerning individualism (and negative freedom) and self-development (and positive freedom);
- if freedom is opposed to slavery and if enslavement to base desires is a form of slavery then freedom might be defined as the capacity to will what is reasonable or good. Law might have a role in developing and supporting this notion of freedom;
- but to restrict the freedoms of individuals to indulge base desires is not to provide freedom;
- freedom might be seen as self-mastery, and the self might be seen as a social self: thus freedom is obedience to a law that one prescribes for oneself and others in a kingdom of rational and autonomous ends;
- an anarchist reading in which law is seen as an infringement of individual liberty: freedom is the basic value and law, which is coercive and repressive, is inconsistent with freedom. Free human beings are seen as capable of rationally governing themselves in a peaceful, co-operative and efficient manner;

- 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 relating to the view that freedom is the absence of law.
- 4 – 6** Selects, or constructs, some relevant points and examples to provide a partial analysis, either narrowly focused (eg on Mill) or lacking detail and precision, of arguments and theories relating to the view that freedom is the absence of law.
- 1 – 3** Selects and applies some relevant points to provide a basic analysis of at least one aspect of this issue **or** some relevant points feature in a tangential approach to the question (eg the focus is on the role of law generally).
- 0** No relevant philosophical points are made.

Interpretation and Evaluation (16 marks)

A range of argumentation is possible. For example:

- liberty is the absence of constraint. Law imposes constraints so the two are incompatible;
- this may be presented positively: ie it is necessary to restrict freedoms in order to secure a good life, social justice, practical freedoms (freedoms to...);
- law and liberty are compatible: the law is essential as a procedural device for securing liberties, rights and a recognisable sphere of private life;
- it could be argued that the law embodies natural rights and freedoms which are 'fundamental';
- the law makes it possible to do certain things through its constitutive and regulative functions - it is not merely restrictive;
- it might be argued that conceptions of positive freedom, and of laws designed to promote self-fulfilment, undermine liberty.

- 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 judgments or summaries in relation to the question: responses in this band may 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 (eg the focus is on two conceptions of liberty and the relationship to law is neglected).
- 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 is demonstrated.

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.

Theme: Philosophy of Science

5

Total for this question: 50 marks

- (a) Describe and illustrate **two** criticisms of the realist approach to scientific theory.
(18 marks)

Knowledge and Understanding (9 marks)

It is likely that scientific realism will initially be described as the view that scientific theories aim to describe reality and may be judged to be true or false with reference to whether they actually do describe reality. This may be stated progressively, ie the realist holds that scientific theories are getting better at describing reality – this is what 'advances in science' means. Additionally, we do have knowledge of the unobservable entities employed in scientific theorising (strings, quarks, etc) through the evidence provided by what is observed: the terms used in scientific theories describe real objects in the world. In short, scientific theory is not simply about how the world appears to us and/or the constructs we employ to make sense of it: it is about reality.

This may be left implicit in the criticisms selected. Two criticisms are likely to be drawn from:

- non-observable theoretical concepts (eg gravitational field, friction, atomic particle, etc) are convenient fictions for the understanding of observable entities or 'shorthand' descriptions of observable phenomena;
- 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;
- there are grounds for '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;
- some may be unimpressed or unconvinced by the search for a unified theory of everything;
- 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 point of scientific theory is that it can successfully predict but successful prediction is not an argument for realism;
- the world investigated by science is a world partly constituted by the minds of scientists who study it. Thus, explanatory power is not necessarily linked to realism;
- rejection of the correspondence theory of truth.

7 – 9 Demonstrates detailed and precise knowledge and understanding of **two** criticisms of the realist approach to scientific theory.

4 – 6 Demonstrates either a range of knowledge but general and prosaic understanding of **two** criticisms of the realist approach to scientific theory, or narrow and detailed but partial knowledge and understanding, eg one criticism is stated accurately but a second is very brief, blurred with the first or omitted. Answers in this band may list three or more criticisms rather than focus on two.

- 1 – 3** Demonstrates some knowledge and limited understanding of at least one criticism of the realist approach to scientific theory.
- 0** No relevant philosophical knowledge and understanding is demonstrated.

Selection and Application (9 marks)

Illustrative examples will depend upon the criticisms selected. Hopefully some examples will be drawn from science, eg illustrations of how instrumentalists might view theories about unobservable entities or illustrations of theories that have turned out to be false, etc. Expect some references to examples used in the literature such as the kinetic theory of gases, Newtonian mechanics or to concepts from the past such as phlogiston.

- 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 the realist approach to scientific theory. The example(s) provided illuminate the criticism identified.
- 4 – 6** Selects or constructs at least one relevant example to provide a partial explanation of **two** criticisms of the realist approach to scientific theory either because detail and precision is lacking or because only one criticism is clearly illustrated. Responses in this band may be characterised by detailed explanation and very 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 the realist approach to scientific theory. Answers at the bottom of this band may consist of vague exposition only with no attempt made to illustrate the criticism.
- 0** No relevant philosophical points are made.

(b) Assess explanations of how objectivity in science might be achieved.	(32 marks)
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Knowledge and Understanding (8 marks)

Candidates may identify scientific method as an 'ideal' of objectivity because the scientist is neutral and disinterested, without preconceived ideas or particular motives, and employs rigorous processes in a systematic attempt to test hypotheses and generate results which are objectively true or false. This idealised view, however, has been challenged through the denial that there are any 'raw facts' which can be perceived in a purely neutral way, uncontaminated by experience and/or conceptual frameworks, and described in a language devoid of theoretical assumptions. So the idealised view of the scientist as a neutral, unbiased, objective and systematic observer beginning with data, the raw facts or basic statements, and moving to hypothesis, experiment and theory, etc is mistaken.

Attempts to secure objectivity might be drawn from a range of positions including verification, falsification, scientific paradigms, etc.

- 7 – 8** Demonstrates detailed and precise knowledge and understanding of arguments and concepts relating to how objectivity in science might be achieved.
- 4 – 6** Demonstrates a range of knowledge but general and prosaic understanding of arguments and concepts relating to how objectivity in science might be achieved or

partial, narrow but detailed knowledge and understanding of arguments and concepts relating to this idea.

1 – 3 Demonstrates basic knowledge and limited understanding of aspects of arguments and concepts relating to how objectivity in science might be achieved (eg there is limited awareness that there is an issue to discuss).

0 No relevant philosophical knowledge and understanding is demonstrated.

Selection and Application (8 marks)

A critical approach to the question (ie a claim that science cannot achieve objectivity) might draw from:

- problems concerning the theory-laden nature of observation (duck-rabbit, Muller-Lyer etc);
- scientific method and practice is guided by theory, there are no pre-theoretical raw facts or basic statements from which the scientists begins. The scientist is looking for particular data in order to confirm, corroborate, amend or refute a theory. Scientific practices are not theory-neutral;
- scientific method and practice is not disinterested: scientific hypotheses are contaminated by experience, by conceptual frameworks and by commitments to particular theories or paradigms;
- scientific method and practice is not neutral. What is studied, how it is studied, depends on occupational cultures, the career interests of the scientist and the social, economic and political climate in which science takes place;
- scientific method and practice is not systematic. Important results are obtained when the 'rule-book' concerning methods is dispensed with; the process of research is creative and involves flair as well as accidents, writing-up the research methodology makes it seem systematic;
- funding may dictate not only what is researched but also which results are of interest. Equally, some data may be ignored if not deemed important or if it doesn't 'fit'.

On the other hand:

- some examples of theory-laden observations are contrived: do they demonstrate either that observations are *completely* theory-laden or that *all* observations are theory-laden?
- doesn't the fact that some important discoveries are made by chance or accident undermine the charge of bias?
- can some notion of objectivity be found in the critical rigour with which scientists (allegedly) approach their work (Popper) or in an account of progress (Kuhn – despite the relativism);
- some might claim evidence of convergence, truth and verisimilitude: the realist claim that successful predictions would be a miracle unless concepts/theories employed were true or moving towards objective truth;
- we do distinguish between good and bad science – can we do so without referring to some dimension of objectivity even if this doesn't include truth?

- 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 how objectivity in science might be achieved.
- 4 – 6** Selects or constructs some relevant points and examples to provide a partial analysis, either narrowly focused or lacking detail and precision, of arguments and theories related to how objectivity in science might be achieved.
- 1 – 3** Selects and applies some relevant points to provide a basic analysis of at least one aspect of this issue **or** some relevant points feature in a tangential approach to the question.
- 0** No relevant philosophical points are made.

Interpretation and Evaluation (16 marks)

A range of argumentation is possible:

- science has been successful: its progress is linear, cumulative and convergent. This is best explained via a correspondence theory of truth and the ability of science to objectively describe what is real;
- the starting point of science cannot be purely objective and neither can its development: it proceeds through contaminated conjectures, falsification and further contaminated conjectures;
- the methodology and practices of scientists are not models of objectivity – normal science is shaped by commitment to paradigms, career interests embedded in research programmes, funding, etc;
- perhaps we should give up on objectivity and go for predictive success, fertility, etc instead.

- 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 judgments or summaries in relation to the question: responses in this band may 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 is demonstrated.

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** criticisms of the view that systematic and neutral observation is essential in the formation of scientific theories. *(18 marks)*

Knowledge and Understanding (9 marks)

Candidates may identify 'the view' as an idealised and commonsense approach to scientific theorising in which the scientist begins with 'raw facts', or 'basic statements', which are reports of empirical observations/perceptual evidence only. Theory formation is then achieved via the systematic movement from observation to hypothesis, testing/experimentation and, eventually, confirmation (or, perhaps, the temporary ability to withstand refutation). However, 'the view' may be seen as given by the question and candidates may legitimately limit their responses to identifying and describing two criticisms of it. These are likely to be drawn from:

- are there any pre-theoretical raw facts or basic statements?
- how do we get from a finite number of observations to universal theory (the problem of induction)?
- conjectures are bold and imaginative rather than reflections of raw facts and/or conjectures are contaminated by experience and by conceptual frameworks;
- observations are constrained by commitments to paradigms (or, during periods of upheaval, attempts to replace paradigms). There is no theory-neutral body of observational data;
- observations are constrained by the interests of the scientist and/or the social, economic and political climate in which science takes place;
- scientific theory involves using unobservable things/concepts in explaining 'reality';
- scientific theories are merely instruments for saving data and are underdetermined by observational data (which will be compatible with a number of theories about unobservable data) and/or the data may be true but theories may (will?) be false;
- scientists may sometimes theorise from analogous arguments rather than from observational data;
- some theories theorise about the impact of a specific observation on a theoretical system or on what might be observed by an observer (quantum mechanics).

Any other reasonable point.

7 – 9 Demonstrates detailed and precise knowledge and understanding of **two** criticisms of the view that observation has a key role in the formation of scientific theories.

4 – 6 Demonstrates either a range of knowledge but general and prosaic understanding of **two** criticisms of the view that observation has a key role in the formation of scientific theories, or narrow and detailed but partial knowledge and understanding, eg one criticism is stated accurately but a second is very brief, blurred with the first or omitted. Answers in this band may list three or more criticisms rather than focus on two.

1 – 3 Demonstrates some knowledge and limited understanding of at least one criticism of the view that observation has a key role in the formation of scientific theories.

0 No relevant philosophical knowledge and understanding is demonstrated.

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 or from the use of certain concepts and/or thought experiments in some scientific theory, eg Schrödinger's cat. However ducks and rabbits are more likely to feature together with other illustrations of perceptual sets and concept-laden ways of seeing.

- 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 the view that observation has a key role in the formation of scientific theories. The example(s) provided illuminate the criticism identified.
- 4 – 6** Selects or constructs at least one relevant example to provide a partial explanation of **two** criticisms of the view that observation has a key role in the formation of scientific theories either because detail and precision is lacking or because only one criticism is clearly illustrated. Responses in this band may be characterised by detailed explanation and very 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 the view that observation has a key role in the formation of scientific theories. Answers at the bottom of this band may consist of vague exposition only with no attempt made to illustrate the criticism.
- 0** No relevant philosophical points are made.

(b) Assess the view that natural science differs from social science because natural science is paradigmatic. (32 marks)

Knowledge and Understanding (8 marks)

The focus is on the differences (and similarities) between natural science and a science of society. Care should be taken to avoid presenting the former as (only) physics and the latter as (only) sociology. The issue concerns Kuhn's approach but the question could be used to introduce other theoretical approaches/concepts.

The concept of a paradigm should be clarified:

- a scientific theory/set of theories, supported by successful and 'striking' or 'exemplary' applications, dominating a field of enquiry and shared by scientists;
- a framework in which theory/beliefs are unquestioned and which establishes both the nature of scientific problems and the method of solving them;
- a description of 'normal science' - for a given period of time the paradigm restricts the theoretical and practical activity of scientists who are defining and attempting to solve problems conventionally (ie within the terms of the paradigm);
- a view of how science changes – science is 'a series of peaceful interludes punctuated by intellectually violent revolutions' when tradition and convention are abandoned and replaced by a new paradigm.

- 7 – 8** Demonstrates detailed and precise knowledge and understanding of arguments and concepts relating to the view that natural science differs from the social sciences because natural science is paradigmatic.
- 4 – 6** Demonstrates a range of knowledge but general and prosaic understanding of arguments and concepts relating to the view that natural science differs from the social sciences because natural science is paradigmatic *or* partial, narrow but detailed knowledge and understanding of arguments and concepts relating to this idea.
- 1 – 3** Demonstrates basic knowledge and limited understanding of aspects of arguments and concepts relating to the view that natural science differs from the social sciences because natural science is paradigmatic (eg there is limited awareness that there is an issue to discuss).
- 0** No relevant philosophical knowledge and understanding is demonstrated.

Selection and Application (8 marks)

Some of the following, or equivalent, issues should be addressed:

- Kuhn's arguments may be further illuminated and/or illustrated with historical examples;
- the typical development of a mature science is the successive transitions from one paradigm to another – it is this which most clearly identifies a field of enquiry as a science;
- scientists, typically, are conservative rather than objective and critical – 'novelty emerges only with difficulty, manifested by resistance, against a background provided by expectation';
- scientific revolutions occur, as a result of paradigm wars, when too many anomalies have arisen and there is a crisis concerning the fit between an old paradigm and counter-instances – old paradigms are replaced because they are incommensurable with the new paradigm;
- all paradigms generate progress (rather than certainties/truths) and scientific development is characterised by an increasingly detailed/refined understanding of the natural world.

The above views (or some of the above views) should be applied directly to the question: ie could/do they also apply to the social sciences? It is likely that, in contrast, the social sciences will be described as being characterised by:

- perspectives rather than paradigms; radical disagreement rather than convention; a degree of commensurability between different theories; a lack of progress.

- 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 the view that natural science differs from the social sciences because natural 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 arguments and theories related to the view that natural science differs from the social sciences because natural science is paradigmatic.

1 – 3 Selects and applies some relevant points to provide a basic analysis of at least one aspect of this issue **or** some relevant points feature in a tangential approach to the question.

0 No relevant philosophical points are made.

Interpretation and Evaluation (16 marks)

Clearly, a range of argumentation is possible (assertions that natural science generates knowledge while social science generates nothing should not be highly rewarded):

- there are differences in this respect but not only in this respect, eg scientific theory, allegedly, can be falsified whereas some views in the social sciences cannot, or what has to be explained in the social sciences makes scientific method/theory inappropriate, etc;
- this difference is the main one. Social science is multi-paradigmatic: theories may move in and out of fashion but seldom disappear (there is a current resurgence of interest in Freud, for example); a synthesis of theoretical approaches is sometimes possible where theories and concepts are not incommensurable; social science is characterised by competing perspectives, etc;
- it might be argued that some (older) social sciences are becoming paradigmatic and that (newer) social sciences are pre-paradigmatic;
- this view exaggerates the differences: natural science is less constrained, conventional and homogenous than the view suggests.

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 judgments or summaries in relation to the question: responses in this band may 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 is demonstrated.