1: What is behaviourism? [3 Marks]

AO1 = 3

Marks	Levels of response mark scheme
3	A full and correct answer, given precisely, with little or no redundancy.
2	The substantive content of the answer is correct, but there may be some redundancy or minor imprecision.
1	Relevant, but fragmented, points.
0	Nothing written worthy of credit.

Indicative content:

- Behaviourism makes an analytic reduction of mental states to behavioural states; mental states really mean behavioural states.
- Students might explain Hard and/or Soft Behaviourism in particular, perhaps by referring to occurrences of behaviour or dispositions to behave.

2: Explain Ryle's claim that substance dualism makes a 'category mistake'. [5 Marks]

AO1 = 5

Marks	Levels of response mark scheme
5	A full, clear and precise explanation. The student makes logical links between precisely identified points, with no redundancy.
4	A clear explanation, with logical links, but some imprecision/redundancy.
3	The substantive content of the explanation is present and there is an attempt at logical linking. But the explanation is not full and/or precise.
2	One or two relevant points made, but not precisely. The logic is unclear.
1	Fragmented points, with no logical structure.
0	Nothing written worthy of credit.

Indicative content:

- Substance dualism is the Cartesian position that the mind and the body (brain) are two separate 'substances' or 'things' (as opposed to properties): res cogitans and res extensa.
- To make a category mistake is to assign a concept to a logical category to which it doesn't belong (eg it would be a category mistake to assign 'numbers' to the category of 'things which have weight'). A 'category mistake' is therefore a 'logical' or a 'semantic' mistake.
- Ryle claims that substance dualism (a) assigns 'mind' (and mental states') to "the categories of 'thing,' 'stuff,' 'attribute,' 'state,' 'process,' 'change,' cause,' and 'effect.'" and (b) conceives of them as non-physical and 'ghostly.'
- Ryle illustrates the category mistake of thinking about 'the mind' as a separate non-physical 'thing' by applying a number of analogies, which all have the following features: once one has a complete description of the component parts of some designated phenomena and how they work together (eg the 'colleges', 'lecture theatres', and 'libraries' of a university) it is a mistake to look for something 'over and above' those constitutive features. Some students will discuss the mistake of looking for 'team spirit' as something that exists in addition to the relationships between players as they undertake the characteristic activities of their sport.
- Ryle argues that to talk about 'the mind' and 'mental states' is to talk about publicly observable overt behaviour or behavioural dispositions which can be expressed in hypothetical and empirically verifiable if-then sentences: these behaviours/dispositions just are 'the mind'.
- NB: Students who simply make points about the character of dualism and/or behaviourism, or define a category mistake in general, cannot get beyond Level 2. For example, students may say that the mind is not a 'thing' but that to have a mind (or to be minded) is to be disposed to behave in indefinitely many complex ways, but again they need to explain the mistake. Students who get to Level 3 and beyond will explain (with different degrees of precision and development) why this is a problem for substance dualism.

Note:

- Students may say that Ryle calls the mind the 'ghost in the machine' but this alone is only worth limited credit (1 mark) as students will need to explain how this view is a result of a category mistake.
- It is unlikely, but students who are very familiar with Ryle's arguments may explain that the dualism's category mistake derives from, on the one hand, being trapped within the grammar of mechanics, and on the other hand, a desire to understand our mind and mental states non-mechanistically: Ryle calls this a 'para-mechanical hypothesis''
- Also unlikely, but some students may make reference to Wittgenstein's private language argument (and his 'beetle in the box') when explaining the category mistake.
- Students need not, but may, note that the category-mistake generates a number of pseudo-philosophical problems: the problem of other minds and the problem of mental causality.
- This indicative content is not exhaustive: other creditworthy responses should be awarded marks as appropriate.

3: Explain the issue of circularity that behaviourists face when defining mental states. [5 marks]

AO1 = 5

Marks	Levels of response mark scheme
5	A full, clear and precise explanation. The student makes logical links between precisely identified points, with no redundancy.
4	A clear explanation, with logical links, but some imprecision/redundancy.
3	The substantive content of the explanation is present and there is an attempt at logical linking. But the explanation is not full and/or precise.
2	One or two relevant points made, but not precisely. The logic is unclear.
1	Fragmented points, with no logical structure.
0	Nothing written worthy of credit.

Indicative content:

- Students may begin by explaining what logical/analytical behaviourists claim: all statements about mental states can be reduced without loss of meaning (analytically reduced/translated without remainder) into statements about behaviour (or behavioural dispositions).
- The issue of circularity might be understood in (at least) two ways:
    - **General circularity:** Mental states (in general) cannot be analysed without reference to other mental states (of some kind or another), so mental states are being analysed in terms of mental states, which is circular; for example: the logical behaviourist may try to reduce someone's 'desire for A' to the 'disposition to do B when A is available', but whether someone is actually 'disposed to do B' will depend on other mental states: e.g. whether someone 'believes that A is available and is not fearful of C'. So a complete analysis of statements about mental states does not translate (without remainder) to statements about behaviour or dispositions to behave: the analysis always comes back 'mental states'.
    - **Specific circularity**: The attempt to reduce statements about specific mental states (without remainder) to statements about behaviour (or behavioural dispositions) will ultimately lead back to the specific mental state with which the analysis began. For example: 'the belief that…' may be analysed in terms the 'disposition to do B in situation C'; whether one is actually 'disposed to do B in situation C', however, will depend on whether one has a 'desire for D'; but then a 'desire for D' is analysed in terms of what someone might do if they held 'the belief that…'. So a complete analysis of statements about mental states does not translate (without remainder) to statements about behaviour or dispositions to behave: the analysis always comes back to the same kind of 'mental state' with which it began.
- A student may explain either (or both) these ways and received full marks.
- Both ways of explaining the issue might be put in terms of the 'holism of the mental'.

NB:

- Students who only make accurate points about the nature of logical/analytical behaviourism cannot get beyond Level 2: they must address the issue of circularity in order for the "substantive content of the explanation" to be present.
- Students who discuss the 'multiple realizability' of mental states can only receive credit in so far as they use this to address "the issue of circularity"; otherwise it is redundant / irrelevant.

4: Outline the view that behaviour is neither a necessary, nor sufficient condition of mindedness (the Super-Spartan and zombie objections). [12 marks]

AO1= 12

Marks	Levels of response mark scheme
10–12	The answer is set out in a precise, fully-integrated and logical form. The content is correct and demonstrates detailed understanding. Points are made clearly and precisely. Relevance is sustained, with very little or no redundancy. Philosophical language is used precisely throughout.
7–9	The answer is set out in a clear, integrated and logical form. The content of the answer is correct and demonstrates detailed understanding. The content is clearly relevant and points are made clearly and precisely. Any lack of clarity with respect to particular points is not sufficient to detract from the answer. Relevance is largely sustained. There may be some redundancy, though not sufficient to detract from the answer. Philosophical language is used correctlythroughout.
4–6	The answer is clear and set out in a coherent form, with logical/causal links identified. The content of the answer is largely correct and most points are made clearly. Relevance is not always sustained and there is some redundancy. Philosophical language is used correctly, with any minor errors not detracting from the response.
1–3	There are some relevant points made, but no integration. Some points are clear, but there is a lack of precision – with possibly insufficient material that is relevant or too much that is irrelevant. Philosophical language is used, though not always consistently or appropriately.
0	Nothing written worthy of credit.

Indicative content

5: Assess the view that mental states are identical to brain states [25 marks]

AO1 = 5, AO2 = 20

Marks	Levels of response mark scheme
21–25	The student argues with clear intent throughout and the logic of the argument is sustained. The student demonstrates detailed and precise understanding throughout. The conclusion is clear, with the arguments in support of it stated precisely, integrated coherently and robustly defended. Arguments and counter-arguments are stated in their strongest forms. Reasoned judgements are made, on an ongoing basis and overall, about the weight to be given to each argument. Crucial arguments are clearly identified against less crucial ones. Philosophical language is used precisely throughout.
16–20	The student argues with clear intent throughout and the logic of the argument is largely sustained. The content is correct and detailed – though not always consistently. The conclusion is clear, with a range of appropriate arguments supporting it. Arguments are generally stated in their strongest forms. There is a balancing of arguments, with weight being given to each – so crucial arguments are noted against less crucial ones. Arguments and counter-arguments are stated clearly, integrated coherently and defended. There may be trivial mistakes, as long as they do not detract from the argument. Philosophical language is used correctly throughout.
11–15	A clear response to the question, in the form of an argument, demonstrating intent. The content is detailed and correct and most of it is integrated. A conclusion and reasons are given and those reasons clearly support the conclusion. There might be a lack of clarity/precision about the logic of the argument as a whole. Arguments and counter-arguments are given, but there may be a lack of balance. Not all arguments are stated in their strongest forms. Stronger and weaker arguments are noted and there are attempts to identify the weight to be given to different arguments, but not necessarily those which are crucial to the conclusion. Philosophical language is used correctly, with any minor errors not detracting from the argument.
6–10	The response to the question is given in the form of an argument, but not fully coherently. The content is largely correct, though there are some gaps and a lack of detail. Relevant points are recognised/identified, but not integrated. Alternative positions are identified, but not precisely. Counter-arguments might be stated in weak forms or even slightly misrepresented. Arguments and counter-arguments are juxtaposed, so similarities and contrasts identified, rather than their impact being clear. Philosophical language is used throughout, though not always fully correctly and/or consistently.
1–5	There is little evidence of an argument. There may be missing content, substantial gaps in the content or the content may be one-sided. There may be a conclusion and several reasonable points may be made. There may be some connections between the points, but there is no clear relationship between the points and the conclusion. There is some basic use of philosophical language.
0	Nothing written worthy of credit.

Indicative content:

It is likely that students will see an affirmative answer to this question as being that given by identity theory (in either its type or token version).
NB: Answers may talk interchangeably about mental/brain states, properties or events, and the mark scheme below will likewise use different terms according to context.

- Type identity theory: (all) mental state types are brain state types.
- Token identity theory: (all) mental state tokens (particular instances of some mental state) are brain state tokens (particular instances of some brain state).
- This is invariably (but not necessarily) seen as an 'ontological reduction' rather than an 'analytic reduction': mental states are identical to brain states ('ontological reduction') although 'mental state' and 'brain state' are not synonymous terms (so not an 'analytic reduction'). This may be put in terms of Frege's sense/reference distinction-–—a mental concept/term and a brain concept/term may have different senses but the same reference. This point may well be used by students to respond to some of the issues that arise.
- Some have treated this identity claim as a contingent truth (it seems that, e.g. Smart does this when he claims that dualism is possible); others (post-Kripke) have seen this as having to be a necessary truth. This may come out during discussion/evaluation.

However (as will be covered below) there is certainly room for subtlety in student responses since:

- Functionalists might claim that for humans (and perhaps animals) mental states are brain states, though for other types of 'system' (e.g. robots) some other kind of state might realise mental states.
- Some dualists could claim that although some mental states are brain states, some are not and are instead non-physical (in some sense).

The overall positions that students adopt my include the following:

- **It depends**: some but not all mental states/properties are brain states/properties (e.g. pain as physical and neural, but imaginings as non-physical).
- **NO**: mental properties are non-physical properties of brains (i.e. property dualism). These properties are neither identical to nor logically supervenient upon physical properties.
- **NO**: minds and their properties are non-physical (substance dualism).
- **YES**: type or token versions of identity theory (as explained above) are correct.
- **NO**: minds and their properties are not neural because they do not (and perhaps could not) exist at all (appealing to eliminative materialist arguments).

Conclusions may be supported by arguments drawn from the supporting content bullet-pointed underneath:

NO: Minds and/or their properties are non-physical: i.e. non-physical substance or at least non-physical mental properties exist (so defending dualist arguments).

- The indivisibility argument for substance dualism (Descartes)
- The conceivability argument for substance dualism: the logical possibility of mental substance existing without the physical (Descartes)
- The 'philosophical zombies' argument for property dualism: the logical possibility of a physical duplicate of this world but without consciousness/qualia (Chalmers)
- The location problem: brain states have precise spatial locations which thoughts lack
- The 'knowledge/Mary' argument for property dualism based on qualia (Jackson)
- The argument from intentionality for property dualism: only mental states have intrinsic (as opposed to derived) intentionality (the irreducibility of intentionality)
- Arguments rooted in concerns about chauvinism and the apparent multiple realizability of mental states.

NO: Minds and their properties are not non-physical, but neither are they part of the physical world---in fact they do not (and perhaps could not) exist physically or non-physically (eliminative materialist arguments).

- Eliminative materialists may combine dualist arguments that would show that the mind, if it were to exist, could not be identified with anything physical, with materialist arguments that suggest that the

mind could not possibly be non-physical---together this would imply that minds are neither physical nor non-physical because they do not exist.

YES (but not necessarily so): Minds and their properties are neurally realised in the actual world (in humans and, perhaps some animals) but should be understood functionally meaning that there may be possible worlds in which they are realised by different physical systems and maybe even by non-physical systems that function appropriately.

- Mental states are multiply realizable: what characterises mental states (e.g. pain) is not that they are physical or non-physical in nature but rather their functional/causal role (role functionalism).
    - Token identity theory may here be used as an attempt to deal with multiple realizability issues.

YES: Minds are brains and mental properties/states are (identical to) brain properties/states

- The strength of such a position could be located in the extent to which it successfully avoids problems facing dualism.
    - It avoids the problems facing interactionist dualism, including conceptual and empirical causation issues (e.g. on the latter: dualism is inconsistent with the widely accepted view that the physical world is causally closed and that energy is conserved).
    - It avoids the problems facing epiphenomenalist dualism, including: (a) the causal redundancy of the mental; (b) the argument from introspection; (c) issues relating to free will and responsibility; (d) epistemological problems (e.g. how can I know that I am having a red experience if the quale has no causal power?).
    - It avoids problems arising from the view that non-physical mental states represent physical reality (there is not enough in common to sustain this relationship of representation---this may be linked to questions about intentionality/representative content)
      NB: intentionality issues cut both ways and some see intentionality of mental states as constituting an argument against physicalism (see earlier).
    - It makes mental states empirically discoverable by science and so arguably solves the problem of other minds facing versions of dualism.
    - It arguably makes claims about the mind (at least potentially) verifiable and so mental terms/talk meaningful (an argument often made by behaviourist materialists).
    - Naturalistic arguments: the purely physical origin and physical constitution of each individual human being---supported by the theory of evolution by natural selection---suggest there is no explanation for the origins of an immaterial mind.
    - Evidence for the neural dependence of all mental phenomena (e.g. the effects of drugs and brain damage, MRI scans of the brain) is best explained by supposing that minds are brains (or at least that any mind that existed is likely to be physical).
    - Successful reductions in the history of science (e.g. sound to compression waves of air), give us (inductive) reason to believe that an equivalent reduction is possible for minds.
    - Ockham's razor: physicalism is to be preferred over dualism as it requires fewer entities so long as it explains the phenomena (at least) as well as dualism (see dualist arguments).
    - There may also be sceptical responses to dualist arguments which nevertheless acknowledge the (possibility inherent) limitations of materialist accounts: e.g. we may not have (or ever have) the theoretical/conceptual apparatus needed to understand/carry out a naturalistic reduction of the mind to the brain but this does not show that it is not reducible in such a way (McGinn's epistemological pessimism).