Mark schemes

Q1.

(a) **[AO2 = 1]**

Answer: Carlo

1

(b) **[AO2 = 1]**

Answer: Dalia

1

[2]

Q2.

[AO1 = 6 AO2 = 4 AO3 = 6]

Level	Marks	Description
4	13-16	Knowledge is accurate, generally well detailed and there is explicit reference to levels of explanation. Application to topic(s) is effective. Discussion is thorough and effective. Minor detail and/or expansion of argument is sometimes lacking. The answer is clear, coherent and focused. Specialist terminology is used effectively.
3	9-12	Knowledge of levels of explanation is evident but there are occasional inaccuracies/omissions. Discussion/application to topic(s) is mostly effective. The answer is mostly clear and organised but lacks focus on levels of explanation. Specialist terminology is used appropriately.
2	5-8	Limited knowledge of levels of explanation is present. Focus is mainly on description. Any discussion/application to topic(s) is of limited effectiveness. The answer lacks clarity, accuracy and organisation in places. Specialist terminology is used inappropriately on occasions.
1	1-4	Knowledge of levels of explanation is very limited. Discussion/application to topic(s) is limited, poorly focused or absent. The answer as a whole lacks clarity, has many inaccuracies and is poorly organised. Specialist terminology is either absent or inappropriately used.
	0	No relevant content.

Possible content:

- extreme reductionism (lowest level of explanation) – explaining/studying complex behaviour/experience by breaking it down into smaller component parts

- levels of explanation – basic physiological unit level (low) to more complex holistic level
- reductionism as a hierarchy moving from extreme reductionism of the hard sciences (low-level) through biological level to broader psychological levels (mid-level) and then to sociological level (high-level)
- levels displayed in a diagram
- types of reductionism in relation to levels, eg biological reductionism as the most basic level in psychology; machine reductionism as mid-level in psychology, environmental reductionism as a less extreme form of reductionism
- how each approach exemplifies a level, eg biological approach as the most reductionist level
- holism as the highest level of explanation taking account of all aspects of a person's behaviour/experience – opposite of reductionism.

Possible application to topics:

- conditions such as schizophrenia can be understood at various levels: basic physiological level, eg dopamine action at the synapse versus a social-psychological level, eg family dysfunction and expressed emotion
- cognitive processes like memory can be understood at various levels: basic physiological level, eg action of acetylcholine and role of the hippocampus versus a social-psychological level, eg the effects of social factors in post-event contamination
- obedience can be understood at various levels: basic physiological level, eg the role of the nervous system in transmitting and analysing verbal prompts of Milgram's experimenter versus a social-psychological level, eg situational pressure due to being at Yale
- gender can be understood at various levels: basic physiological level, eg XX/XY chromosomes versus a social-psychological level, eg social learning theory explanations.

Possible discussion points:

- basic unit level of reductionism is more appropriate in the hard sciences because methods and traditions involve detailed scientific analysis of discrete units
- basic unit level reductionism leads to clearly defined variables which can be operationalised allowing for inference of cause and effect
- any level of reductionism furthers the aim for psychology's recognition as a science
- usefulness of basic unit level treatments, eg development and use of drugs
- discussion of parsimony – the idea that the simplest level of explanation is the best
- extreme reductionist level leads to loss of meaning – components do not add up to reflect whole experience
- contrasts with holistic level – studying and valuing human experience as a whole; some behaviours can only really be investigated in the holistic context in which they occur
- contrast with the types of investigation preferred by humanistic psychologists, eg case studies, diaries, interviews which yield richer, more detailed information
- discussion of levels of explanation in relation to approaches.

Credit other relevant material.

[16]

Q3.

[AO1 = 6 AO2 = 4 AO3 = 6]

Level	Mark	Description
4	13-16	Knowledge of reductionism is accurate and generally well detailed. Application to the statement is effective. Discussion is thorough and effective. Minor detail and/or expansion of argument is sometimes lacking. The answer is clear, coherent and focused. Specialist terminology is used effectively.
3	9-12	Knowledge of reductionism is evident but there are occasional inaccuracies/omissions. Application/discussion is mostly effective. The answer is mostly clear and organised but occasionally lacks focus. Specialist terminology is used appropriately.
2	5-8	Limited knowledge of reductionism is present. Focus is mainly on description. Any discussion/application is of limited effectiveness. The answer lacks clarity, accuracy and organisation in places. Specialist terminology is used inappropriately on occasions.
1	1-4	Knowledge of reductionism is very limited. Application/discussion is limited, poorly focused or absent. The answer as a whole lacks clarity, has many inaccuracies and is poorly organised. Specialist terminology is either absent or inappropriately used.
	0	No relevant content.

Possible content:

- reductionism – explaining/studying complex and meaningful behaviour/experience by breaking it down into smaller component parts/constituents/elements
- levels of explanation – basic unit level to more complex holistic level
- types of reductionism: biological – explaining behaviour at the level of genes, brain chemicals etc; environmental – explaining behaviour at the level of stimulus-response units; experimental reductionism; machine reductionism – explaining behaviour in terms of mechanistic models
- objectivity, use of empirical methods – basic scientific principle that evidence should be observable and unaffected by opinion/subjective interpretation.

Possible application:

Links between reductionism and objectivity/empirical methods:

- explaining/understanding behaviour at the basic component level of biological units is objective and empirical, eg measurement of levels of neurotransmitters like serotonin and dopamine
- explaining/understanding behaviour at the basic component level of stimulus-response links (eg classical/operant conditioning) is objective, empirical as it involves manipulation of stimuli and observation/recording of responses
- explaining information processing at the level of processing units each with

separate features (eg multistore model) is objective – involves empirical manipulation/observation of variables in experiments.

Possible discussion points:

- the reductionist approach fits well with psychology's drive for scientific status and the consequent focus on objectivity and empiricism
- reductionism leads to clearly defined variables which can be operationalised and observed objectively which allows for the inference of causal relationships – establishing a cause and effect relationship
- reductionism leads to loss of meaning – components do not add up to reflect whole experience
- contrasts with holism – studying and valuing human experience as a whole, considering meaning, feeling, personal experience/context. Only by studying the whole can we really understand human experience
- some behaviours, particularly social behaviours can only really be investigated in the holistic context in which they occur
- usefulness of reductionist treatments, eg use of drugs – effectiveness can be empirically tested
- contrast with the types of investigation preferred by humanistic psychologists such as Maslow and Rogers – use of case studies, diaries, interviews – to yield richer, more detailed information
- difficulty of finding a balance between objective, empirical method and the striving for meaningful information
- comparison of approaches in terms of reductionism/objectivity/empirical approach.

Credit other relevant material.

[16]