

Markscheme

November 2017

Psychology

Higher and standard level

Paper 1

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Section A

Biological level of analysis

1. Describe **one** study related to localization of function in the brain.

[8]

Refer to the paper 1 section A markbands below when awarding marks.

The command term “describe” requires candidates to give a detailed account of one study related to localization of function in the brain.

Candidates should clearly identify the specific part of the brain and its function, and use a relevant study to demonstrate localization of function.

Responses should describe the aim, procedure, findings and/or conclusions of the study.

Examples of localization include, but are not limited to:

- localization of speech production/understanding
- the role of the hippocampus and memory
- the role of the amygdala in aggression
- the role of the prefrontal lobe in decision-making.

If Sperry and Gazzaniga's study of split-brain patients is described, it is important that the focus of the response is on localization of function.

If a candidate describes more than one study, credit should be given only to the first description.

If a candidate addresses localization of function without making reference to a relevant study, apply the markbands up to a maximum of **[3]**.

If a candidate describes a study that is not relevant to localization of function, **[0]** should be awarded.

Section A markbands

Marks	Level descriptor
0	The work does not reach a standard described by the descriptors below.
1–3	There is an attempt to answer the question, but knowledge and understanding is limited, often inaccurate, or of marginal relevance to the question.
4–6	The question is partially answered. Knowledge and understanding is accurate but limited. Either the command term is not effectively addressed or the response is not sufficiently explicit in answering the question.
7–8	The question is answered in a focused and effective manner and meets the demands of the command term. The response is supported by appropriate and accurate knowledge and understanding of research.

Cognitive level of analysis

2. Explain how **one** principle that defines the cognitive level of analysis may be demonstrated in **one** example of research (theory or study).

[8]

Refer to the paper 1 section A markbands on the next page when awarding marks.

The command term “explain” requires candidates to give a detailed account of how one principle that defines the cognitive level of analysis is clearly demonstrated in one relevant theory or study.

Acceptable principles include, but are not limited to:

- cognitive processes can be scientifically investigated
- cognitive processes are important mediators between stimuli and responses
- mental representations guide behaviour
- cognitive processing can be compared to computer function

After outlining the principle and giving a brief summary of one study or theory, candidates should make an explicit link between the research and the principle. If a relevant principle and research are identified but are not explicitly linked, then apply the markbands up to a maximum of **[6]**.

If a candidate explains a principle without making reference to research, apply the markbands up to a maximum of **[4]**.

If a candidate only describes a study or theory relevant to the cognitive level of analysis without addressing a principle at the cognitive level of analysis, apply the markbands up to a maximum of **[3]**.

If a candidate explains more than one principle and/or uses more than one example of research, credit should be given only to the first explanation of the first principle and to the first example demonstrating that principle.

Section A markbands

Marks	Level descriptor
0	The work does not reach a standard described by the descriptors below.
1–3	There is an attempt to answer the question, but knowledge and understanding is limited, often inaccurate, or of marginal relevance to the question.
4–6	The question is partially answered. Knowledge and understanding is accurate but limited. Either the command term is not effectively addressed or the response is not sufficiently explicit in answering the question.
7–8	The question is answered in a focused and effective manner and meets the demands of the command term. The response is supported by appropriate and accurate knowledge and understanding of research.

Sociocultural level of analysis

3. Describe **one** ethical consideration related to **one** study at the sociocultural level of analysis.

[8]

Refer to the paper 1 section A markbands below when awarding marks.

The command term “describe” requires candidates to give a detailed account of one ethical consideration related to one study at the sociocultural level of analysis.

The ethical consideration may be positive (what guidelines were followed) or negative (what guidelines were not followed).

Ethical considerations which may be addressed include, but are not limited to:

- deception
- protection from physical or mental harm
- briefing and debriefing
- right to withdraw from a study
- informed consent
- anonymity/confidentiality.

Responses should make a clear link between the study at the sociocultural level of analysis and the ethical consideration. If there is no explicit link between the study and the ethical consideration, award up to a maximum of **[6]**.

If a candidate describes one ethical consideration without making reference to one research study from the sociocultural level of analysis, the response should be awarded up to a maximum of **[4]**.

If a candidate describes a study from the sociocultural level of analysis but one ethical consideration is not addressed, up to a maximum of **[3]** should be awarded.

If a candidate describes more than one ethical consideration or addresses more than one study, credit should be given only to the first ethical consideration or the first study.

Section A markbands

Marks	Level descriptor
0	The work does not reach a standard described by the descriptors below.
1–3	There is an attempt to answer the question, but knowledge and understanding is limited, often inaccurate, or of marginal relevance to the question.
4–6	The question is partially answered. Knowledge and understanding is accurate but limited. Either the command term is not effectively addressed or the response is not sufficiently explicit in answering the question.
7–8	The question is answered in a focused and effective manner and meets the demands of the command term. The response is supported by appropriate and accurate knowledge and understanding of research.

Section B assessment criteria

A — Knowledge and comprehension

Marks	Level descriptor
0	The work does not reach a standard described by the descriptors below.
1–3	The answer demonstrates limited knowledge and understanding that is of marginal relevance to the question. Little or no psychological research is used in the response.
4–6	The answer demonstrates limited knowledge and understanding relevant to the question or uses relevant psychological research to limited effect in the response.
7–9	The answer demonstrates detailed, accurate knowledge and understanding relevant to the question, and uses relevant psychological research effectively in support of the response.

B — Evidence of critical thinking: application, analysis, synthesis, evaluation

Marks	Level descriptor
0	The work does not reach a standard described by the descriptors below.
1–3	The answer goes beyond description but evidence of critical thinking is not linked to the requirements of the question.
4–6	The answer offers appropriate but limited evidence of critical thinking or offers evidence of critical thinking that is only implicitly linked to the requirements of the question.
7–9	The answer integrates relevant and explicit evidence of critical thinking in response to the question.

C — Organization

Marks	Level descriptor
0	The work does not reach a standard described by the descriptors below.
1–2	The answer is organized or focused on the question. However, this is not sustained throughout the response.
3–4	The answer is well organized, well developed and focused on the question.

Section B

4. Examine **one** interaction between cognition and physiology in terms of behaviour.

[22]

Refer to the paper 1 section B assessment criteria when awarding marks.

The command term “examine” requires candidates to consider an argument or concept in a way that uncovers the assumptions and interrelationships between cognition and physiology in terms of behaviour.

In examining the interaction, examples may be either uni-directional (that is, one factor influences the other factor) or bi-directional (that is, looking at the true interdependence of both factors), but candidates are not required to make the distinction. The focus of the response, however, must be on the interaction between the cognitive and physiological factors.

Uni-directional interactions include, but are not limited to:

- the role of acetylcholine or beta-amyloid proteins in Alzheimer’s disease (*eg* Lorenzo *et al.* 2000)
- the effect of meditation on physiological processes (for example, Davidson, 2004; Luders *et al.* 2009)
- the role of the hippocampus in memory (for example, Maguire *et al.* 2000; Milner, 1957).

Bi-directional interactions include, but are not limited to:

- models of emotions (for example, LeDoux’s The Emotional Brain model, Schachter & Singer’s two-factor theory)
- Ramachandran & Hirstein (1998) on perception and pain in phantom limb syndrome
- stress and immune function (for example, Kiecolt-Glaser *et al.* 1984)
- cognitive appraisal and biological reactions (for example, Lazarus and Folkman, 1975; Speisman, 1964).

The examination of the interaction may include, but is not limited to:

- methodological considerations
- the relevance of animal studies
- the issue of reductionism
- the role of information processing in behaviour
- supporting and/or contradicting evidence

If a candidate examines more than one interaction between cognition and physiology in terms of behaviour, credit should be given only to the first interaction.

5. Evaluate schema theory.

[22]

Refer to the paper 1 section B assessment criteria when awarding marks.

The command term “evaluate” requires candidates to make an appraisal by weighing up the strengths and limitations of schema theory. Although a discussion of both strengths and limitations is required, it does not have to be evenly balanced to gain high marks.

Research may include, but is not limited to:

- Bartlett’s (1932) seminal study “War of the Ghosts”
- Loftus and Palmer (1974) on schema processing as a consequence of leading questions
- Anderson and Pichert’s (1978) study on the effect of schema processing on memory encoding and retrieval
- Wynn and Logie’s (1998) study using real-life experiences in schema processing
- Brewer and Treyen’s (1981) “office schema” study
- Piaget’s studies on the reorganization of schema during child development
- studies on gender schemas (for example, Martin *et al.*, 1995; Bee, 1999).

Evaluation of the theory may include, but is not limited to:

- the degree of empirical support
- methodological considerations of research used to support the theory
- application to real life (for example, eye witness testimony, stereotypes)
- predictive value (for example, in research studies on stereotyping)
- if the theory has relevance for understanding cognition and/or behaviour (for example, gender or cultural roles)
- Cohen’s (1993) criticism of schema theory regarding the vagueness of the concept.

If a candidate addresses only strengths or only limitations, the response should be awarded up to a maximum of **[5]** for criterion B, critical thinking, and up to a maximum of **[2]** for criterion C, organization. Up to full marks may be awarded for criterion A, knowledge and comprehension.

6. Discuss **one or more** examples of psychological research (theories or studies) on conformity to group norms.

[22]

The command term “discuss” requires candidates to offer a considered review of one or more examples of psychological research (theories or studies) on conformity.

Theories may include, but are not limited to:

- informational/normative social influence theory
- social comparison theory
- bystander effect
- groupthink

Studies may include, but are not limited to:

- Asch (1951, 1952, 1956) testing conformity under non-ambiguous conditions
- Sherif (1935) testing conformity with autokinetic effect illusion
- Crutchfield (1955) on the influence of intellectual competence and personality
- Moscovici *et al.* (1969, 1976, 1985) on minority influence
- Berry (1967) on the role of cultural dimensions
- Kagitcibasi (1984) on cultural norms and conformity
- Bond and Smith (1996) on changes over time and cross-cultural differences.

Discussion may include, but is not limited to:

- methodological, cultural, ethical and gender considerations
- contrary explanations and/or findings
- application of the theory and/or empirical findings.

If research addressing obedience, rather than conformity, is discussed, no marks should be awarded for this discussion.

Responses that focus on one example of research must include other theories and/or studies in the discussion in order to be awarded marks in the top markband for criterion A.
