



# Markscheme

November 2015

Psychology

Higher level 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.

Responses should clearly describe the aim, procedure and findings of the chosen study, displaying clear understanding of, and support for, localization of function in the brain. Candidates should clearly identify the specific part of the brain and its function.

Examples of localization include, but are not limited to:

- the role of Broca’s or Wernicke’s Area in speech production/understanding
- the role of the hippocampus in memory consolidation
- 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 Maguire’s study is used, the focus of the response should be on the role of the posterior hippocampus on spatial memory and not solely on neuroplasticity.

Candidates should make a clear link between the study and explanation of localization to gain marks in the top markband. If the link is only implicit apply the markbands up to a maximum of **[6 marks]**.

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

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

### Section A markbands

Marks	Level descriptor
0	The answer does not reach a standard described by the descriptors below.
1 to 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 to 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 to 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. Describe **one** ethical consideration related to **one** research study at the cognitive 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 in relation to one research study at the cognitive level of analysis. Ethical considerations can be positive (what guidelines could be followed) or negative (what guidelines were not followed).

Responses should clearly relate the study to the cognitive level of analysis and must focus on the cognitive aspects of the research.

If a candidate describes more than one ethical consideration in relation to one or more research studies, credit should be given only to the first ethical consideration described in relation to the first research study used.

If a candidate describes a study but an ethical consideration is not addressed, a maximum of **[3 marks]** should be awarded.

A response that addresses one or more ethical considerations but does not refer to an appropriate study should be awarded a maximum of **[4 marks]**.

Candidates should make a clear link between the ethical consideration and the study to gain marks in the top mark band. If the link is only implicit, apply the markbands up to a maximum of **[6 marks]**.

**Section A markbands**

<b>Marks</b>	<b>Level descriptor</b>
<b>0</b>	The answer does not reach a standard described by the descriptors below.
<b>1 to 3</b>	There is an attempt to answer the question, but knowledge and understanding is limited, often inaccurate, or of marginal relevance to the question.
<b>4 to 6</b>	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.
<b>7 to 8</b>	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. Outline how **one** principle that defines the sociocultural level of analysis has been demonstrated in **one** example of research (theory or study).

[8]

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

The command term “outline” requires candidates to give a brief account of an appropriate principle and show how this principle is clearly demonstrated in a study or theory relevant to the sociocultural level of analysis.

Acceptable principles may include, but are not limited to:

- social and cultural factors influence individual behaviour (for example, social learning theory)
- we want connectedness with, and a sense of belonging to, others (for example, Asch)
- we construct our conceptions of the individual and social self (for example, social identity theory)
- people’s views of the world are resistant to change (for example, Festinger *et al.*’s When Prophecy Fails study, 1956)
- our behaviour is influenced by others even when we believe we are acting independently (for example, Sherif’s autokinetic effect).

Candidates are not required to give an in-depth account of the theory or study, but must focus on the link between the principle and the theory or study – for example, how Asch’s conformity study demonstrates an individual’s need to belong to a group.

If a candidate outlines more than one principle in relation to one or more theories or studies, credit should be given only to the first principle outlined in the first theory or study used.

If a candidate outlines a principle making no link to an example of research at the sociocultural level of analysis, up to a maximum of **[4 marks]** should be awarded.

Candidates should make a clear link between the principle and the research (theory or study) to gain marks in the top mark band. If the link is only implicit apply the mark bands up to a maximum of **[6 marks]**. If a candidate outlines a study but there is no relevant principle identified, up to a maximum of **[3 marks]** should be awarded.

### Section A markbands

Marks	Level descriptor
0	The answer does not reach a standard described by the descriptors below.
1 to 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 to 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 to 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**

<b>Marks</b>	<b>Level descriptor</b>
<b>0</b>	The answer does not reach a standard described by the descriptors below.
<b>1 to 3</b>	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.
<b>4 to 6</b>	The answer demonstrates limited knowledge and understanding relevant to the question or uses relevant psychological research to limited effect in the response.
<b>7 to 9</b>	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**

<b>Marks</b>	<b>Level descriptor</b>
<b>0</b>	The answer does not reach a standard described by the descriptors below.
<b>1 to 3</b>	The answer goes beyond description but evidence of critical thinking is not linked to the requirements of the question.
<b>4 to 6</b>	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.
<b>7 to 9</b>	The answer integrates relevant and explicit evidence of critical thinking in response to the question.

**C — Organization**

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

## Section B

4. Discuss **one or more** effects of the environment on **one or more** physiological processes.

[22]

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

The command term “discuss” requires candidates to offer a considered and balanced review of effects of the environment on physiological processes.

Examples of how the environment may affect physiological processes include, but are not limited to:

- effects of jet lag on bodily rhythms
- effects of poverty on neuroplasticity
- effects of learning on neuroplasticity
- effects of environmental stressors on cardiovascular health
- effects of institutionalization on growth and physical development.

Examples of studies/theories include, but are not limited to:

- Maguire *et al.* (2000) on neuroplasticity in the hippocampus of taxi drivers
- Marmot *et al.*'s (1997) Whitehall study on workplace stress and cardiovascular health
- Meaney's (1988) study on environmental stressors and hippocampal cell loss in rats
- Rosenzweig and Bennett's (1972) study on stimulating environments and dendritic branching.

Meditation studies are not valid responses to this question as there are no environmental factors involved.

Discussion of the effects may include, but is not limited to:

- methodological or ethical issues
- empirical evidence
- application of the findings
- contradictory findings
- other contributing factors.

Candidates may discuss one effect of the environment or one physiological process in order to demonstrate depth of knowledge, or may discuss a larger number of effects of the environment or physiological processes in order to demonstrate breadth of knowledge. Both approaches are equally acceptable.

5. Discuss how **and** why **one** particular research method is used at the cognitive level of analysis.

[22]

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

The command term “discuss” requires candidates to give a considered and balanced review of the reasons for how and why one particular research method is used in studies at the cognitive level of analysis. Although a discussion of both how and why is required, it does not have to be evenly balanced to gain high marks.

A wide range of studies may be used, as long as the main focus of the response is on cognitive processes.

Discussion about how the method is used might refer to key features of the method as well as how the method was used in specific research. For example, experimental studies may identify the sampling and allocation procedures, the independent and dependent variables, and the way in which extraneous variables were controlled.

Discussion about why the method is used might refer to the appropriateness of the method for the aim, issues of validity and reliability, sample choice and size, ease and cost of the procedure, and the generalizability of findings. Candidates may address the strengths of the method as well as how it reflects the principles of the cognitive level of analysis, *ie* candidates could make clear how the selected research method underpins one or more principles of the level of analysis.

If a candidate discusses more than one research method, credit should be given only to the first discussion.

If the candidate addresses only the how or only the why, the response should be awarded up to a maximum of **[6 marks]** for criterion A, knowledge and comprehension, up to a maximum of **[6 marks]** for criterion B, critical thinking, and up to a maximum of **[2 marks]** for criterion C, organization.

If a candidate addresses a research method but does not explicitly link it to the cognitive level of analysis, the response should be awarded up to a maximum of **[3 marks]** for criterion A, knowledge and comprehension, up to a maximum of **[4 marks]** for criterion B, critical thinking, and up to a maximum of **[2 marks]** for criterion C, organization.



6. Discuss the role of **one** cultural dimension on human behaviour.

[22]

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

The command term “discuss” requires candidates to offer a considered and balanced review, supported by appropriate evidence, of the role of a specific cultural dimension on human behaviour.

Cultural dimensions include, but are not limited to:

- individualism versus collectivism: how much people define themselves apart from their group memberships
- masculinity versus femininity: attitudes towards competitiveness, materialism, equality and work and leisure
- power distance: the way people perceive power differences and how they react to power relations
- uncertainty avoidance: society’s tolerance for uncertainty and ambiguity
- long-term versus short-term orientation (Confucian dynamism): time perspective in a society in relation to gratification of people’s needs.

Candidates are required to demonstrate how the selected cultural dimension affects human behaviour. Examples include, but are not limited to:

- the role of individualism–collectivism (I–C) on levels of conformity (Berry *et al.*, 1967)
- the role of I–C on self-serving bias/modesty bias (Kashima and Triandis, 1986)
- the role of I–C on levels of compliance (Petrova *et al.*, 2007)
- the role of long-term orientation on compulsive buying (Chen *et al.*, 2005)
- the role of power distance on mitigated speech (Fischer and Orasanu, 1999).

Discussion may include but is not limited to:

- methodological issues
- empirical evidence
- application of the findings
- alternative explanations of the behaviour.

If a candidate discusses more than one cultural dimension, credit should be given only to the first dimension.

Candidates may address one human behaviour in order to demonstrate depth of knowledge or more than one human behaviour to demonstrate breadth of knowledge. Both approaches are equally acceptable.

If a candidate addresses one cultural dimension but does not explicitly link it to human behaviour, the response should be awarded up to a maximum of **[5 marks]** for criterion A, knowledge and comprehension, up to a maximum of **[3 marks]** for criterion B, critical thinking, and up to a maximum of **[2 marks]** for criterion C, organization.

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