

# Markscheme

**May 2017**

**Psychology**








**Higher level and standard level**


**Paper 1**

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The following are the annotations available to use when marking responses.

Annotation	Explanation
	Unclear
	Incorrect Point
	Good Response/Good Point
IR	Irrelevant
AQ	Answers the Question
CKS	Clear Knowledge Shown
NAQ	Not Answered Question
	Apply to blank pages
	On-page comment text box (for adding specific comments)
	Highlight (can be expanded)
TNCE	Theory is Not Clearly Explained
CON	Contradiction
DEV	Development
D	Description
DET	Relevant Detail
EG	Example
EVAL	Evaluation
EXC	Excellent Point
GP	Good Point
	Wavy Underline Tool
NE	Not Enough
VL	Very Limited
WKAR	Weak Argument

You **must** make sure you have looked at all pages. Please put the  annotation on any blank page, to indicate that you have seen it.

## Section A

### Biological level of analysis

1. Describe **one** effect of neurotransmission on human behaviour.

**[8]**

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

The command term “describe” requires candidates to give a detailed account that clearly illustrates one effect of neurotransmission on human behaviour.

Examples of responses include, but are not limited to:

- the role of serotonin in depression
- the role of acetylcholine in memory
- the role of dopamine in addiction
- the role of noradrenaline (norepinephrine) in attention.

Studies may be presented, but the focus of the response should be on the effects of neurotransmission on behaviour and not on the description of a study.

Animal research may be used to describe an effect of neurotransmission, but the response must then be linked to human behaviour. If there is no clear link to human behaviour, a maximum of **[5]** may be awarded.

If a candidate describes more than one effect of neurotransmission, credit should be given only to the first effect described. If the candidate describes one effect that involves several neurotransmitters (for example, Fisher on the role of neurotransmission in human attraction) this would be acceptable as the focus of the question is on neurotransmission.

### 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** study investigating the reliability of **one** cognitive process. **[8]**

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

The command term “describe” requires candidates to give a detailed account of one study investigating the reliability of one cognitive process. The description should include the aim, procedure, results and conclusion of the study.

Cognitive processes may include, but are not limited to:

- Memory – reconstructive memory, false memories, eye-witness testimony, flashbulb memory, memory distortions
- Perception – top-down/bottom-up processing, visual illusions, values, context, cultural factors.

Studies may include, but are not limited to:

- Bartlett’s (1932) “War of the Ghosts” study relating to schema theory
- Loftus and Palmer’s (1974) study on reconstructive memory
- Riniolo *et al.*’s (2009) archival study of eyewitness memory related to the sinking of the Titanic
- Deffenbacher *et al.* (2004) on emotion and reliability of memory
- Deregowski’s (1972) study on visual perception and culture.

If a candidate only describes the reliability of one cognitive process without making reference to a relevant research study, the response should be awarded up to a maximum of **[3]**.

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

## 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.

### Sociocultural level of analysis

3. Describe the “etic” concept, making reference to **one** example.

**[8]**

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

“Etic” refers to an approach to studying the role of culture on behaviour. This approach describes or explains behaviours across cultures to find out what could be universal in human behaviour. Studies may be focused on psychological issues related to universal human behaviour or finding similarities/differences across cultures.

A description of the “etic” concept may include, but is not limited to:

- a deductive approach based on established theory
- often uses an ethnocentric approach
- use of standardized materials that have established reliability
- the goal is generalization to the human population
- use of "experts" trained in psychology.

Examples of “etic” research may include, but are not limited to:

- Cole and Scribner (1974) – research in cultural differences in memory strategies
- Kashima and Triandis (1986) on cultural differences in attributional styles
- Berry (1967) – variation of Asch’s conformity study
- Kleinman (1982) on cultural differences in expression of depression.

Candidates may describe the etic approach making reference to an example that is not a research study (eg studying mental health). As long as they describe the example clearly and with detail they may receive full marks.

If a candidate describes the “etic” concept without making reference to one example from the sociocultural level of analysis, the response should be awarded up to a maximum of **[4]**.

If a candidate only describes an appropriate example without describing the etic concept, the response should be awarded up to a maximum of **[3]**.

### 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 **two** 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 review of two effects of the environment on one or more physiological processes.

Candidates should explicitly identify an appropriate environmental factor and the relevant physiological process.

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

- jet lag on Circadian rhythms
- daylight hours and levels of melatonin
- poverty on neuroplasticity
- environmental stressors and General Adaptation Syndrome
- effects of institutionalization on growth and physical development.

Examples of studies include, but are not limited to:

- Maguire *et al.*'s (2000) on neuroplasticity in the hippocampus of taxi drivers
- Marmot *et al.*'s (1997) Whitehall study on workplace stress and general health
- Meaney's (1988) study on how environmental stressors lead to hippocampal cell loss in rats
- Rosenzweig and Bennett's (1972) study on stimulating environments and dendritic branching
- Bremner *et al.* (2003) on environmental stressors and the reduction of hippocampal volume.

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

- methodological and/or ethical issues
- supporting and contrary findings
- application of the findings
- contributing factors other than the environment affecting physiological processes.

If a candidate discusses more than two effects, credit should be given only to the first two discussions.

If a candidate discusses only one effect, the response should be awarded up to a maximum of **[5]** for criterion A, knowledge and comprehension, up to a maximum of **[4]** for criterion B, critical thinking, and up to a maximum of **[2]** for criterion C, organization. The response does not have to be evenly balanced to gain high marks.



5. Discuss the use of technology in investigating **one** cognitive process. **[22]**

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

The command term “discuss” requires candidates to offer a considered review of the ways in which technology is used in investigating one cognitive process.

Cognitive processes may include, but are not limited to: memory; perception; attention; language; decision-making.

Examples include, but are not limited to:

- The use of PET scans to monitor brain activity during cognitive tasks (Mosconi, 2005).
- The use of MRI scans to observe specific deficits in the brain and how this impacts cognitive processing (Corkin, 1997) or to observe changes in structures related to cognition over time (Maguire’s studies: 2000; 2002; 2011).
- The role of fMRI scans to investigate the interaction of parts of the brain in flashbulb memories (Phelps, 2011; Sharot, 2007).

Discussion may include, but is not limited to:

- how brain imaging technologies have changed the study of cognitive psychology
- differences in why and how different technologies are used
- evaluation of the techniques (for example, cost/benefit analysis, reductionism)
- ethical and methodological considerations in the use of the technology.

It is important that candidates discuss the use of the technology, and not simply evaluate studies. Although an actual understanding of how the technology works may be beneficial, it is not required for top marks to be awarded.

Candidates may discuss one type of technology in order to demonstrate depth of knowledge, or may discuss a number of different technologies in order to demonstrate breadth of knowledge. Both approaches are equally acceptable.

If a candidate discusses the use of technology in investigating more than one cognitive process, credit should be given only to the discussion of the first cognitive process.

**6. Evaluate social identity 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 social identity theory. Although a discussion of both strengths and limitations is required, it does not have to be evenly balanced to gain high marks.

Studies related to social identity theory may include but are not limited to:

- Tajfel’s studies on social groups and identities
- Sherif *et al.*’s Robbers Cave study (1961)
- Cialdini *et al.*’s Basking in Reflected Glory study (1976)
- Abrams’s study of the role of social identity on levels of conformity (1990)
- Maass’s study of the role of social identity on violence (2003).

Evaluation may include, but is not limited to:

- the effectiveness of the theory in explaining inter-group behaviour
- the productivity of the theory in generating psychological research
- methodological, cultural and gender considerations
- contrary findings or explanations
- applications of the theory.

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.

If a candidate only evaluates research and does not directly evaluate the theory, 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.

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