

# Markscheme

**May 2025**

**Psychology**

**Higher level**

**Paper 1**

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**Section A markbands**

<b>Marks</b>	<b>Level descriptor</b>
0	The answer does not reach a standard described by the descriptors below.
1–3	<ul style="list-style-type: none"> <li>• The response is of limited relevance to or only rephrases the question.</li> <li>• Knowledge and understanding is mostly inaccurate or not relevant to the question.</li> <li>• The research supporting the response is mostly not relevant to the question and if relevant only listed.</li> </ul>
4–6	<ul style="list-style-type: none"> <li>• The response is relevant to the question, but does not meet the command term requirements.</li> <li>• Knowledge and understanding is accurate but limited.</li> <li>• The response is supported by appropriate research which is described.</li> </ul>
7–9	<ul style="list-style-type: none"> <li>• The response is fully focused on the question and meets the command term requirements.</li> <li>• Knowledge and understanding is accurate and addresses the main topics/problems identified in the question.</li> <li>• The response is supported by appropriate research which is described and explicitly linked to the question.</li> </ul>

## Section A

### Biological approach to understanding behaviour

1. With reference to **one** relevant study, explain the effect of **one** agonist on behaviour. **[9]**

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

The command term “explain” requires candidates to give a detailed account, with reasons or causes, of how one agonist affects behaviour with reference to one relevant study.

An agonist is a molecule that can bind and activate a receptor to induce a biological reaction. Candidates may either use an example of an endogenous agonist, such as a neurotransmitter, or an exogenous agonist, such as a drug.

Relevant studies include, but are not limited to:

- Antonova et al. (2011) – acetylcholine and its effects on spatial memory consolidation
- Martinez and Kesner (1991) – physostigmine as an ACh agonist in the consolidation of spatial memory
- Passamonti et al. (2012) – serotonin as an agonist in the study of impulsive aggression
- Rogers and Kesner (2003) – acetylcholine and its effects on spatial memory consolidation
- Setiawan et al. (2013) – alcohol as a dopamine agonist and increased activity in the nucleus accumbens

If a candidate explains the effect of one agonist without reference to a relevant study, award up to a maximum of **[5]**.

If a candidate addresses a relevant study but does not explain the effect of one agonist, award up to a maximum of **[4]**.

If a candidate explains the effect of more than one agonist, credit should be given only to the first agonist.

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

## Cognitive approach to understanding behaviour

2. Describe **one** model of memory with reference to **one** relevant study.

[9]

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

The command term “describe” requires candidates to give a detailed account of one model of memory with reference to one relevant study.

Relevant models of memory may include, but are not limited to:

- Flashbulb memory theory (Importance Driven Model)
- Levels of processing
- Multi-store model
- Schema Theory
- Working Memory Model

Relevant studies may include, but are not limited to:

- Bartlett’s (1932) study of the role of schema on memory storage
- Brown and Kulik’s (1977) study of flashbulb memory
- Craik and Lockhart’s (1975) study of the levels of processing model
- Landry and Bartling (2011), Robbins et al (1996) on the evidence of working memory
- Peterson and Peterson (1959) on the role of rehearsal and memory consolidation
- Murdock’s (1962) or Glanzer & Cunitz’s (1966) studies on the serial position effect
- Studies of brain damage to support the theory: Milner’s (1966) study of HM; Warrington and Shallice’s (1974) study of KF.

Although candidates may include a drawing of the model, only the written description of the model should be assessed.

If a candidate describes more than one model of memory or more than one study, credit should be given only to the first model of memory or study described.

If a candidate describes one model of memory without making reference to a relevant study, up to a maximum of **[5]** should be awarded.

If a candidate only describes an appropriate study without describing a model of memory, up to a maximum of **[4]** should be awarded.

### Sociocultural approach to understanding behaviour

3. Explain the effect of **one** cultural dimension on behaviour and/or cognition with reference to **one** relevant study. **[9]**

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

The command term "explain" requires candidates to give a detailed account, with reasons or causes, of the effect of one cultural dimension on behaviour and/or cognition, with reference to one relevant study.

Relevant studies may include, but are not limited to:

- Individual versus Collectivism: Berry's (1967) study of conformity; Kulkofsky's (2011) study of flashbulb memory
- Long- versus short-term orientation: Chen et al.'s (2005) study of consumer behaviour
- Power distance: Zhang et al.'s (2010) study of impulsive buying; Eylon and Au's (1999) study of empowerment in the workplace
- Uncertainty avoidance: Shane's (1995) study of preference for innovation

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

If a candidate explains one cultural dimension without reference to a relevant study, up to a maximum of **[5]** should be awarded.

If a candidate describes a relevant study without explaining the cultural dimension, up to a maximum of **[4]** should be awarded.

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

**Section B assessment criteria**

**A — Focus on the question**

To understand the requirements of the question students must identify the problem or issue being raised by the question. Students may simply identify the problem by restating the question or breaking down the question. Students who go beyond this by **explaining** the problem are showing that they understand the issues or problems.

<b>Marks</b>	<b>Level descriptor</b>
0	Does not reach the standard described by the descriptors below.
1	Identifies the problem/issue raised in the question.
2	Explains the problem/issue raised in the question.

**B — Knowledge and understanding**

This criterion rewards students for demonstrating their knowledge and understanding of specific areas of psychology. It is important to credit **relevant** knowledge and understanding that is **targeted** at addressing the question and explained in sufficient detail.

<b>Marks</b>	<b>Level descriptor</b>
0	Does not reach the standard described by the descriptors below.
1–2	The response demonstrates limited relevant knowledge and understanding. Psychological terminology is used but with errors that hamper understanding.
3–4	The response demonstrates relevant knowledge and understanding but lacks detail. Psychological terminology is used but with errors that do not hamper understanding.
5–6	The response demonstrates relevant, detailed knowledge and understanding. Psychological terminology is used appropriately

### C — Use of research to support answer

Psychology is evidence based so it is expected that students will use their knowledge of research to support their argument. There is no prescription as to which or how many pieces of research are appropriate for their response. As such it becomes important that the research selected is **relevant** and useful in **supporting** the response. One piece of research that makes the points relevant to the answer is better than several pieces that repeat the same point over and over.

Marks	Level descriptor
0	Does not reach the standard described by the descriptors below.
1–2	Limited relevant psychological research is used in the response. Research selected serves to repeat points already made.
3–4	Relevant psychological research is used in support of the response, and is partly explained. Research selected partially develops the argument.
5–6	Relevant psychological research is used in support of the response and is thoroughly explained. Research selected is effectively used to develop the argument.

### D — Critical thinking

This criterion credits students who demonstrate an inquiring and reflective attitude to their understanding of psychology. There are a number of areas where students may demonstrate critical thinking about the knowledge and understanding used in their responses and the research used to support that knowledge and understanding.

The areas of critical thinking are:

- research design and methodologies
- triangulation
- assumptions and biases
- contradictory evidence or alternative theories or explanations
- areas of uncertainty.

These areas are not hierarchical and not all areas will be relevant in a response. In addition, students could demonstrate a very limited critique of methodologies, for example, and a well-developed evaluation of areas of uncertainty in the same response. As a result, a holistic judgement of their achievement in this criterion should be made when awarding marks.

Marks	Level descriptor
0	Does not reach the standard described by the descriptors below.
1–2	There is limited critical thinking and the response is mainly descriptive. Evaluation or discussion, if present, is superficial.
3–4	The response contains critical thinking, but lacks development. Evaluation or discussion of most relevant areas is attempted but is not developed.
5–6	The response consistently demonstrates well developed critical thinking. Evaluation and/or discussion of relevant areas is consistently well developed.

**E — Clarity and organisation**

This criterion credits students for presenting their response in a clear and organized manner. A good response would require no re-reading to understand the points made or the train of thought underpinning the argument.

<b>Marks</b>	<b>Level descriptor</b>
0	Does not reach the standard described by the descriptors below.
1	The answer demonstrates some organization and clarity, but this is not sustained throughout the response.
2	The answer demonstrates organization and clarity throughout the response.

## Section B

4. Discuss the role of animal research in understanding the relationship between the brain and 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 review of the role of animal research in understanding the relationship between the brain and human behaviour. A clear link between animal research and the understanding of human behaviour must be made.

Relevant studies include, but are not limited to:

- Meaney et al. (2000) on the role of cortisol on the hippocampus with regard to memory in mice
- Rogers and Kesner (2003) on the role of acetylcholine in formation of spatial memories in mice
- Klein (2008) on the role of exercise on neuroplasticity in rats
- Rosenzweig et al.'s (1972) study on the effect of social interaction and neuroplasticity in rats
- Weiskrantz's (1956) study of amygdala lesioning and the fear response in rhesus monkeys
- Lashley (1929) study on localization of memory in mice.

Discussion points may include, but are not limited to:

- similarities between human and animal physiology and behaviour
- generalizability of findings from animal studies to human behaviour
- ability to carry out experimental research to establish causal relationships
- use of animals in cases where it would be unethical in human studies
- ability to carry out longitudinal and generational research
- sample sizes and potential for replication.

5. Discuss the influence of emotion on **one or more** cognitive 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 the influence of emotion on one or more cognitive processes.

Responses may focus on any cognitive process that is influenced by emotion such as memory, decision-making, or any other cognitive process.

Appropriate research may include, but is not limited to:

- Bechara et al (1999) study of people with damage to vmPFC and decision-making
- De Martino et al (2006) on the role of emotion on financial decision-making
- Brown and Kulik (1977); Neisser and Harsch’s (1992) studies of flashbulb memory
- Yuille and Cutshall’s (1986) study on leading questions and anxiety
- Talarico and Rubin’s (2003) study on confidence in memory and emotional intensity
- Sharot et al.’s (2007) study on the biological basis of flashbulb memories
- Kulkofsky et al.’s (2011) study on the role of culture on flashbulb memories
- McGaugh and Cahill’s (1995) study on the role of emotion and amygdala activation in the creation of memories.

Discussion points may include, but are not limited to:

- examining the underlying assumptions
- the validity of evidence in support of the explanation
- strength and limitations of the methodology
- the difficulties of carrying out empirical research
- gender and/or cultural considerations in research on emotion
- ethical considerations in research on emotion
- strengths and/or limitations of a reductionist argument
- alternative explanations/findings.

Candidates may discuss one cognitive process to demonstrate depth of knowledge or may discuss more than one cognitive process to demonstrate breadth of knowledge. Both approaches are equally acceptable.

Candidates may discuss one emotion, or emotions in general. Both approaches are equally acceptable.

6. Discuss the formation of stereotypes **and/or** the effect(s) of stereotypes on behaviour. **[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 formation of stereotypes and/or the effect(s) of stereotypes on behaviour.

Relevant studies for the formation of stereotypes include, but are not limited to:

- Campbell (1967) – Grain of truth hypothesis
- Hamilton and Gifford (1976) – Illusory correlation
- Hilliard and Liben (2010) – Social Identity Theory

Relevant studies for the effects of stereotypes include, but are not limited to:

- Allport and Postman, 1947; Martin and Halverson, 1983 – memory distortion
- Zhang, 1998; Van Ryn and Burke, 2000 – misdiagnosis in mental health
- Steele and Aronson, 1995; Spencer et al., 1999; Stone et al. (1999) – stereotype threat
- Shih (2002, 2012) – stereotype boost
- Duncan, 1976; Gibbins, 1969 – prejudice and discrimination against individuals

Relevant discussion points may include, but are not limited to:

- measuring constructs (for example, spotlight anxiety, cognitive biases, social identity)
  - ethical considerations relevant to creating stereotypes
  - applications of findings
  - external validity of laboratory research; low internal validity of field research
  - temporal validity of research and the replication crisis
  - limitations of samples used in stereotyping research (for example, reliance on university students; WEIRD sampling).
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