

Markscheme

May 2025

Psychology

Higher level

Paper 1

© International Baccalaureate Organization 2025

All rights reserved. No part of this product may be reproduced in any form or by any electronic or mechanical means, including information storage and retrieval systems, without the prior written permission from the IB. Additionally, the license tied with this product prohibits use of any selected files or extracts from this product. Use by third parties, including but not limited to publishers, private teachers, tutoring or study services, preparatory schools, vendors operating curriculum mapping services or teacher resource digital platforms and app developers, whether fee-covered or not, is prohibited and is a criminal offense.

More information on how to request written permission in the form of a license can be obtained from <https://ibo.org/become-an-ib-school/ib-publishing/licensing/applying-for-a-license/>.

© Organisation du Baccalauréat International 2025

Tous droits réservés. Aucune partie de ce produit ne peut être reproduite sous quelque forme ni par quelque moyen que ce soit, électronique ou mécanique, y compris des systèmes de stockage et de récupération d'informations, sans l'autorisation écrite préalable de l'IB. De plus, la licence associée à ce produit interdit toute utilisation de tout fichier ou extrait sélectionné dans ce produit. L'utilisation par des tiers, y compris, sans toutefois s'y limiter, des éditeurs, des professeurs particuliers, des services de tutorat ou d'aide aux études, des établissements de préparation à l'enseignement supérieur, des fournisseurs de services de planification des programmes d'études, des gestionnaires de plateformes pédagogiques en ligne, et des développeurs d'applications, moyennant paiement ou non, est interdite et constitue une infraction pénale.

Pour plus d'informations sur la procédure à suivre pour obtenir une autorisation écrite sous la forme d'une licence, rendez-vous à l'adresse <https://ibo.org/become-an-ib-school/ib-publishing/licensing/applying-for-a-license/>.

© Organización del Bachillerato Internacional, 2025

Todos los derechos reservados. No se podrá reproducir ninguna parte de este producto de ninguna forma ni por ningún medio electrónico o mecánico, incluidos los sistemas de almacenamiento y recuperación de información, sin la previa autorización por escrito del IB. Además, la licencia vinculada a este producto prohíbe el uso de todo archivo o fragmento seleccionado de este producto. El uso por parte de terceros —lo que incluye, a título enunciativo, editoriales, profesores particulares, servicios de apoyo académico o ayuda para el estudio, colegios preparatorios, desarrolladores de aplicaciones y entidades que presten servicios de planificación curricular u ofrezcan recursos para docentes mediante plataformas digitales—, ya sea incluido en tasas o no, está prohibido y constituye un delito.

En este enlace encontrará más información sobre cómo solicitar una autorización por escrito en forma de licencia: <https://ibo.org/become-an-ib-school/ib-publishing/licensing/applying-for-a-license/>.

Section A markbands

Marks	Level descriptor
0	The answer does not reach a standard described by the descriptors below.
1–3	• The response is of limited relevance to or only rephrases the question. • Knowledge and understanding is mostly inaccurate or not relevant to the question. • The research supporting the response is mostly not relevant to the question and if relevant only listed.
4–6	• The response is relevant to the question, but does not meet the command term requirements. • Knowledge and understanding is accurate but limited. • The response is supported by appropriate research which is described.
7–9	• The response is fully focused on the question and meets the command term requirements. • Knowledge and understanding is accurate and addresses the main topics/problems identified in the question. • The response is supported by appropriate research which is described and explicitly linked to the question.

Section A

Biological approach to understanding behaviour

1. Describe **one** ethical consideration related to **one** study on the relationship between genetics and human behaviour. **[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 ethical consideration related to one study investigating the relationship between genetics and human behaviour.

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

Ethical considerations include, but are not limited to:

- protection of participants
- deception
- right to withdraw from a study
- informed consent
- anonymity
- confidentiality
- reporting of results
- debriefing

Relevant studies may include, but are not limited to:

- Caspi et al.’s (2003) study on how a region in the serotonin transporter gene (5-HTT) can moderate the influence of stressful life events on depression.
- Kendler (2006) twin study on genetics and depression.
- Brunner et al.’s (1993) study of a Dutch family on the relationship between a mutation in the MAOA structural gene and impulsive aggression
- Weissman et al.’s (2005) longitudinal family study on the genetic nature of Major Depressive Disorder
- Curtis et al.’s (2004) study on evolutionary explanation for disgust
- Wedekind et al.’s (1995) “sweaty T-shirt” study on the relationship between female preference for male sweat and the major histocompatibility gene complex (MHC) similarity.

If a candidate describes one ethical consideration without referring to a relevant study, award up to a maximum of **[5]**.

If a candidate refers to a relevant study without describing one ethical consideration, award up to a maximum of **[4]**.

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

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

Animal research may be used but it must be linked to human behaviour.

Cognitive approach to understanding behaviour

2. Explain intuitive (automatic) thinking 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, including reasons or causes, of intuitive (automatic) thinking with reference to one relevant study

The account of the term may include a reference to any relevant theory or model on thinking and decision-making, for example dual process theory.

Relevant studies may include, but are not limited to:

- Stroop’s (1935) studies on interference during a colour naming task.
- Alter et al.’s (2007) studies on the effect of disfluency on metacognitive reasoning.
- Tversky and Kahneman’s (1974) studies on how different heuristics such as the anchoring bias, availability, representative heuristics, etc) influence decision-making in situations of uncertainty
- Tversky and Kahneman’s (1981) study on the effect of framing on decision-making.
- Strack and Mussweiler (1997); Englich and Mussweiler (2001) on anchoring bias and decision-making.
- Hamilton and Gifford’s (1976) study on how intuitive thinking is involved in stereotype judgements.

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

If a candidate explains intuitive (automatic) thinking without making a reference to a study, up to a maximum of **[5]** should be awarded.

If a candidate addresses an appropriate study without referring to intuitive (automatic) thinking, up to a maximum of **[4]** should be awarded.

Sociocultural approach to understanding behaviour

3. Describe social cognitive theory 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 how social cognitive theory can explain behavior with reference to one relevant study.

The main concepts of social cognitive theory may include, but are not limited to:

- Social learning or learning by observation
- imitation (for example, of role models)
- vicarious learning
- the role of attention, retention, motivation and reproduction
- self-efficacy
- reciprocal determinism
- Identification

Relevant studies may include, but are not limited to:

- Bandura et al.'s (1961) and (1965) studies on observational learning and aggression in children
- Joy et al.'s (1986) study on the impact of television on children's aggressive behaviour
- Perry, Perry and Rasmussen's (1986) research study on the relationship between aggression and self-efficacy in children
- Williams and Williams' (2010) research study on the relationship between performance in mathematics and self-efficacy in children
- Fagot et al.'s (1992) study on parental influences on gender development.
- Odden and Rochat's (2004) study on how Samoan children learn cultural norms and behavior through observation.

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

If a candidate describes social cognitive theory without referring to a study, up to a maximum of **[5]** should be awarded.

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

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.

Marks	Level descriptor
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.

Marks	Level descriptor
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.

Marks	Level descriptor
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 Evaluate **one or more** studies that use animal research to investigate the relationship between the brain and human behaviour. [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 one or more studies that use animal research to investigate the relationship between the brain and human behaviour.

Although a discussion of both strengths and limitations is required, it does not have to be evenly balanced to gain high marks.

Relevant studies include, but are not limited to:

- Meaney et al. (2000) on the role of cortisol on the hippocampus with regard to memory
- Rogers and Kesner (2003) and Martinez and Kesner (1991) on the role of acetylcholine in formation of spatial memories
- Cases et al. (1995) on *the role of serotonin in aggression*
- Ferguson et al. (2000) on the role of oxytocin in social memory in rodents
- Klein (2008) on the role of exercise on neuroplasticity in rats
- Rosenzweig et al.’s (1972) study on the effect of environmental stimulation on brain development
- Weiskrantz’s (1956) study of amygdala lesioning and the fear response in rhesus monkeys.
- Lashley’s (1929) study on localization of memory in mice
- Le Doux’s (1990) study on the relationship between amygdala and fear conditioning in rats.

Evaluation of the research may include, but is 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
- issues of validity and reliability
- assumptions and biases
- the appropriateness of the methods for the aim.

If the candidate addresses only strengths or only limitations of the study or studies, the response should be awarded up to a maximum of [3] for criterion D: critical thinking. All remaining criteria should be awarded marks according to the best fit approach.

5. Discuss the influence of emotion on **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 influence of emotion on one cognitive process.

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:

- 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
- Bechara’s (1999) study on the role of damage to the vmPFC on decision-making.

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
- limitations of a reductionist argument
- alternative explanations/findings.

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

If a candidate addresses more than one cognitive process, credit should be given only to the first one.

6. Discuss **one or more** effects that acculturation has on cognition and/or behaviour.
[22]

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

The command term “discuss” requires candidates to requires candidates to offer a considered review of one or more effects of acculturation on cognition and/or behaviour.

Relevant effects of acculturation may include, but are not limited to:

- Effects on stress levels: for example, Lueck and Wilson (2010); Wang et al. (2010); Miranda and Matheny (2000); Berry et al. (1987)
- Effects on dietary choices (leading to obesity): for example Shah et al. (2015); Ishizawa & Jones (2016); Goel et al. (2004); Guendelman et al. (2011)
- Effects on mental health: for example, Torres et al. (2012); Rogler et al. (1991)

Discussion points may include but are not limited to:

- methodological considerations
- the inability to establish a cause-and-effect relationship in the studies
- ecological and internal validity of research
- generalizability of the research
- ethical considerations
- cultural and gender considerations
- areas of uncertainty
- implications of the findings.

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