

Markscheme

November 2022

Psychology

Standard level

Paper 1

12 pages

© International Baccalaureate Organization 2022

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 2022

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, 2022

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	<ul style="list-style-type: none"> • The answer does not reach a standard described by the descriptors below.
1–3	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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** study related to genetics and 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 study related to genetics and behaviour.

The description of the study should include the aim, procedure, results, and conclusions of the study.

Relevant studies may include, but are not limited to:

- Bailey and Pillard (1991) on genes and sexuality
- Bouchard et al. (1990) on the relationship between genes and intelligence
- Caspi et al. (2003) on the relationship between the 5-HTT gene and depression
- Caspi et al. (2002) on the “warrior gene” and anti-social behaviour
- Gilbertson (2002) on genes, hippocampal size and PTSD
- Holland (1988) on genes and anorexia
- Kendler (2006) on genes and depression
- Kendler and Prescott (1998) on genes and drug addiction
- Tobi et al. (2018) The Dutch Hunger Winter study - genes, stress, and obesity
- Wedekind (1995) on the relationship between genes, the immune system, and mate selection.

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

If the candidate describes or explains the link between genetics and behaviour, but does not describe an appropriate study, award up to a maximum of **[4]**.

Cognitive approach to understanding behaviour

2. With reference to **one** relevant study, describe the influence of emotion on **one** cognitive process.

[9]

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

The command term “describe” requires candidates to give a detailed account of the influence of emotion on one cognitive process with reference to one relevant study.

Responses may focus on any cognitive process that is affected by emotion such as perception, memory or decision making.

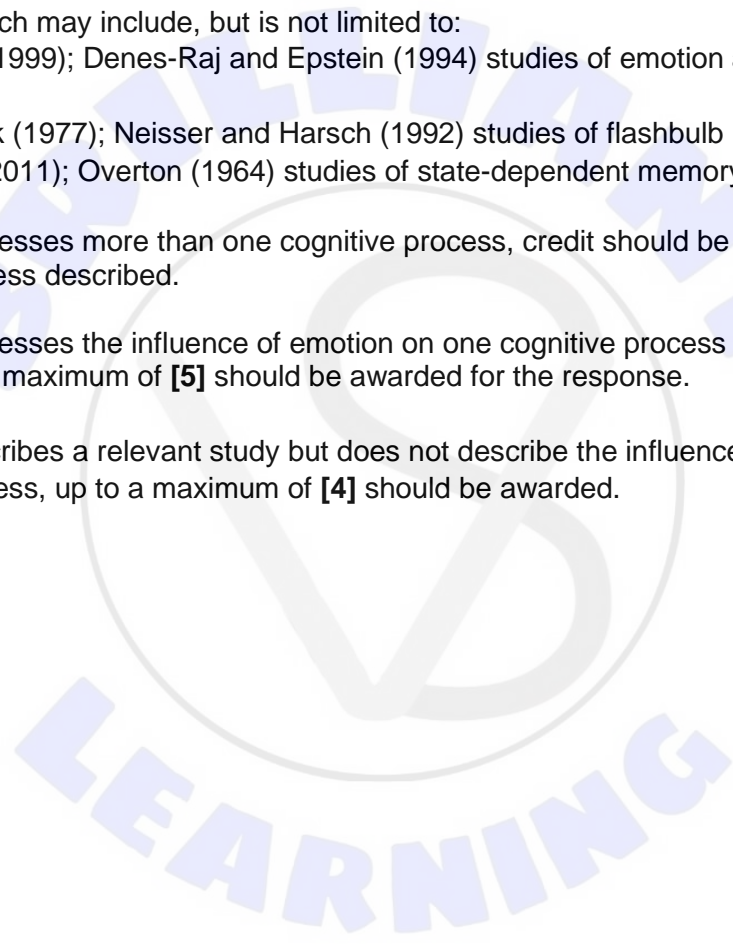
Appropriate research may include, but is not limited to:

- Bechara et al. (1999); Denes-Raj and Epstein (1994) studies of emotion and decision-making
- Brown and Kulik (1977); Neisser and Harsch (1992) studies of flashbulb memory
- Nutt and Lam (2011); Overton (1964) studies of state-dependent memory

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

If a candidate addresses the influence of emotion on one cognitive process without including a relevant study, a maximum of **[5]** should be awarded for the response.

If a candidate describes a relevant study but does not describe the influence of emotion on one cognitive process, up to a maximum of **[4]** should be awarded.



Sociocultural approach to understanding behaviour

3. Describe **one** effect of stereotypes on behaviour 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 effect of stereotypes on behaviour with reference to one relevant study.

Effects of stereotypes on behaviour and relevant studies may include, but are not limited to:

- the influence of recall (Allport and Postman, 1947; Cohen, 1981; Martin and Halverson, 1983)
- the effect on academic performance (Spencer et al., 1977; Steele and Aronson, 1995; Shih et al., 2002)
- the effect of priming elderly stereotype on walking speed (Bargh et al., 1996)
- misdiagnosis in mental health (Zhang, 1998).

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

If a candidate describes one effect of stereotypes on behaviour without making reference to a relevant study, up to a maximum of **[5]** should be awarded.

If a candidate describes a relevant study but does not describe one effect of stereotypes on behaviour, 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. Discuss the effect(s) of **one or more** pheromones 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 on the influence of one or more pheromones on behaviour.

Candidates may address the effect of pheromones in relation to specific aspects of behaviour or address behaviour in general. Both approaches are equally acceptable.

Candidates may address the ambiguity of research into pheromones and include research that shows a lack of evidence for their existence or they may argue for their existence. Both approaches are acceptable.

Relevant research may include but is not limited to:

- Mishor et al. (2021) on the role of pheromones in aggression in humans
- Lundstrom and Olsson (2005); Hare et al. (2017); Zhou et al. (2014); Saxton et al.’s (2008) studies on the effects of androstadienone on women's attraction to men and assignment of gender figures
- Cutler's (1998) study on sexual behaviour in men
- Wedekind et al. (1995) investigating mate preference
- Doucet et al.’s (2009) study on maternal behaviour.

Discussion may include, but is not limited to:

- to what extent pheromones have an effect on human behaviour
- how the findings of the research have been interpreted and applied
- supporting and/or contradictory evidence
- the value of animal research.

Animal research may be used to describe the effect of pheromones but the response must then be linked to human behaviour. If there is no explicit link to human behaviour the response should be awarded up to a maximum of **[3]** for criterion D: critical thinking.

5. Evaluate **one or more** models of memory.

[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 models of memory.

Relevant models may include, but are not limited to:

- Levels of processing model
- Multi-Store Model of Memory
- Working Memory Model
- Flashbulb memory theory
- Schema theory.

Relevant studies may include, but are not limited to:

- Baddeley and Hitch’s (1974) studies on the evidence of working memory
- Craik and Tulving’s (1975) study of the Levels of Processing Model
- Peterson and Peterson (1959) on the role of rehearsal and memory consolidation
- Murdock’s (1962) or Glanzer and 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 Scoville’s (1957) study of KF
- Bartlett’s (1932) study of the role of schema on memory storage
- Brown and Kulik’s (1977) study of flashbulb memory.

Evaluation may include, but is not limited to:

- assumptions made by the model
- the difficulty of testing the whole model
- cultural considerations
- measurement of constructs (eg surprise, rehearsal, schema)
- contradictory evidence or characteristics of memory that are not addressed by the model
- the strengths and limitations of the evidence to support the model

Candidates may evaluate one model to demonstrate depth of knowledge, or may evaluate more than one model to demonstrate breadth of knowledge. Both approaches are equally acceptable.

If the candidate addresses only strengths or only limitations, 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.

6. Discuss **one or more** effects that enculturation has on human cognition **and/or** 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 one or more effects enculturation has on human cognition and/or behaviour.

Enculturation is defined as the process by which people learn the necessary and appropriate skills and norms in the context of their culture.

Candidates may address the effects of enculturation in relation to cognitive aspects and/or behaviour. Both approaches are equally acceptable.

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

- Effects on parenting behaviours: Fagot et al. (1974); Barry (1959)
- Effects on memory: Demorest et al (2008) on musical memory; Martin and Halvorson (1983) on reconstructive memory; Kearins (1981) on memory strategies among indigenous Australians
- Effects on conformity: Berry and Katz (1967)
- Effects on impulsivity: Lamm et al.’s (2017) marshmallow study of self-control in German vs Cameroonian children; Chen et al.’s (2005) study of online shopping behaviour.

Discussion points may include, but are not limited to:

- methodological limitations in measuring and testing the effects of enculturation
- the inability to establish a cause-and-effect relationship
- ecological and internal validity of research
- ethical considerations in investigating enculturation
- areas of uncertainty – eg the inability to account for individual difference.

Candidates may discuss one or a small number of potential effects of enculturation on human cognition and/or behaviour in order to demonstrate depth of knowledge, or may discuss a larger number of potential effects of enculturation on human cognition and/or behaviour in order to demonstrate breadth of knowledge. Both approaches are equally acceptable.
