

# Markscheme

**May 2023**

**Psychology**

**Higher level**

**Paper 1**

12 pages

© International Baccalaureate Organization 2023

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 2023

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, 2023

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**

<b>Marks</b>	<b>Level descriptor</b>
<b>0</b>	<ul style="list-style-type: none"> <li>• The answer does not reach a standard described by the descriptors below.</li> </ul>
<b>1–3</b>	<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>
<b>4–6</b>	<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>
<b>7–9</b>	<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. Explain **one** evolutionary explanation for behaviour, 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 one evolutionary explanation of behaviour, with reference to one relevant study.

Evolutionary explanations are based on assumptions such as, but not limited to, the following:

- the basic principles of natural selection (adaptation)
- human behaviours may be inherited
- the mechanism of sexual selection; increasing the fitness of one's offspring
- inclusive fitness
- parental investment theory – the sex with higher obligatory investment will be more selective in choosing sex partners

Relevant research could include, but is not limited to:

- Fessler *et al.* (2006) or Curtis (2004) on natural selection and disgust
- Ekman and Friesen's (1971) study on universality of emotional expressions
- Raison and Miller's (2012) Pathogen Host Defence Hypothesis and depression
- Mineka and Cook (1989) on biological preparedness and phobias
- Madsen's (2007) study on altruism
- Buss *et al.*'s (1990) study on sexual selection and mate selection.
- Wedekind's (1995) study on natural selection and the role of MHC in mate selection

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

If a candidate only describes an appropriate study without outlining an evolutionary explanation, up to a maximum of **[4]** should be awarded.

If a candidate explains an evolutionary explanation without making reference to a study, up to a maximum of **[5]** should be awarded.

## Cognitive approach to understanding behaviour

2. Describe schema 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 schema theory, with reference to one relevant study.

Candidates may refer to relevant concepts such as, but not limited to:

- mental representation/framework of knowledge based on past experience
- assimilation and accommodation (Piaget)
- reconstructive memory
- the role of schema in the encoding and retrieval of memory
- schema types

Relevant studies could include but are not limited to:

- Bartlett’s (1932) study of “War of the Ghosts”
- Anderson & Pichert’s (1978) study on schema theory and memory retrieval
- Bower, Black and Turner’s (1979) study on the effects of scripts in comprehension and memory
- Brewer & Treyens’ (1981) study of potential effects of schema on memory
- Bransford and Johnson’s (1972) study on schemas influencing encoding
- Darley and Gross’s (1983) study on effects of social schemas
- Loftus and Palmer (1974) on schema and the misinformation effect

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

If a candidate describes schema theory without making reference to a study, up to a maximum of **[5]** should be awarded.

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

### Sociocultural approach to understanding behaviour

3. Describe **one** cultural dimension, 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 cultural dimension with reference to one relevant study.

Cultural dimensions may include, but are not limited to:

- individualism versus collectivism (for example, Chen *et al.*, 2005; Berry, 1967)
- power/ distance (for example, Zhang *et al.*, 2010; Eylon and Au, 1999; Lynn *et al.*, 1993)
- long-term versus short-term orientation (Confucian Work Dynamism) (for example, Hofstede and Bond, 1988)
- masculinity versus femininity (for example, Vunderick and Hofstede, 1998)
- uncertainty avoidance (for example, Shane, 1995).

Responses should present the core traits that define the chosen cultural dimension. For example, candidates may describe individualistic societies' focus on uniqueness, achievement and freedom, whereas collectivistic societies focus on family, relationships and a common fate or heritage.

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

If a candidate describes 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 describing the cultural dimension, 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.



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

## Section B

4. Discuss **one or more** hormones and their effects 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 how one or more hormones affect behaviour.

Relevant hormones may include, but are not limited to: adrenaline, cortisol, melatonin, testosterone, oestrogen, oxytocin.

Any aspect of human behaviour (for example, aggression, depression, attachment) is acceptable as long as the response focuses on how the hormone influences the particular behaviour

Examples of how hormones influence human behaviour could include, but are not limited to the influence of:

- cortisol on recall
- oxytocin on trust and social bonding
- adrenaline on memory
- testosterone on aggression

Possible studies include, but are not limited to:

- Radke et al.’s (2015) study investigating the effects of testosterone on women’s responses to angry faces
- McGaugh and Cahill’s (1995) study on adrenaline and memory
- Newcomer et al.’s (1999) study on cortisol and memory
- Baumgartner et al.’s (2008) study on the role of oxytocin on trust in economic behaviour.

Discussion points may include, but are not limited to:

- examining underlying assumptions
- the validity of evidence in support of the explanation
- strengths and limitations of the research
- the difficulties of carrying out empirical research
- the debate of generalizing from animals to human behaviour
- strengths and limitations of a reductionist argument.

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

5. Discuss **one or more** methods used to study the interaction between technologies and cognitive processes.

[22]

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

The command term “discuss” requires candidates to give a considered review of one or more methods used to study the interaction between digital technology and cognitive processes.

Relevant studies may include, but are not limited to:

- Mueller and Oppenheimer’s (2014) experiment on the use of laptops versus paper in note-taking and memory consolidation
- Brand’s (2010) experiment on the effect of technology on attention and concentration
- Wood *et al.*’s (2012) experiment on the impact of multi-tasking with technology on real-time classroom learning
- Vasile’s (2012) correlational study on the possible consequences of the use of internet activities and games on cognitive processes
- Rosser *et al.*’s (2007) correlational study on the positive effects of simulations/videogames on visual attention
- Rosen, Carrier and Cheever’s (2013) correlational study on the influence of induced multi-tasking on task-switching and attention.
- Schaefer *et al.* (2011); Talarico *et al.* (2017) on use of interviews to study the role of technology in creating emotional memories.

Discussion may include, but is not limited to:

- the strengths and limitations of the method(s)
- possible theoretical assumptions and/or biases in relation to the chosen method
- issues of validity and reliability
- the generalizability of findings
- the use of triangulation to increase the credibility of the findings
- the appropriateness of the method for the aim of the research
- the sample choice and size
- operationalization and measurement of variables.

6. Discuss **one or more** effects of the interaction of local and global influences 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 one or more effects of the interaction of local and global influences on behaviour.

Behaviour in this instance may include attitudes, identities or any other accepted behaviour.

Candidates may discuss the effect of the interaction of local and global influences on specific aspects of human behaviour or address behaviour in general. Both approaches are equally acceptable.

Relevant studies on the effects of the interaction of local and global influences on behaviour may include, but are not limited to:

- Arnett's (2002) study on identity confusion where people find themselves at home in neither the local culture nor the global culture
- Berry's (1987) study on acculturative stress.
- Buchan et al. (2009) on the effect of globalisation and cooperative behaviour
- Chiu and Cheng's (2007) study on how simultaneous activation of cultural representations may facilitate creative performance
- Hermans and Dimaggio's (2007) study on conceptualization of self in which global and local voices are involved in continuous interchanges and negotiations
- Norasakkunkit and Uchida (2014); Becker et al. (2002) on the effects of delocalization and identity confusion/mental health

Discussion may include but is not limited to:

- methodological and ethical considerations such as how the effects of the interaction of local and global influences are measured
  - the extent and the limitations of the interaction of local and global influences on behaviour
  - to what extent do people develop a bicultural identity with one identity rooted in the local culture and one based in the global culture (acculturation)
  - whether identity confusion is related to cultural distance from the global culture
  - the importance of studying self on three levels: individual, local and global.
-