



Markscheme

May 2019

Psychology

Standard level

Paper 1

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 written permission from the IB.

Additionally, the license tied with this product prohibits commercial 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, is not permitted and is subject to the IB's prior written consent via a license. More information on how to request a license can be obtained from <http://www.ibo.org/contact-the-ib/media-inquiries/for-publishers/guidance-for-third-party-publishers-and-providers/how-to-apply-for-a-license>.

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 de l'IB.

De plus, la licence associée à ce produit interdit toute utilisation commerciale 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, n'est pas autorisée et est soumise au consentement écrit préalable de l'IB par l'intermédiaire d'une licence. Pour plus d'informations sur la procédure à suivre pour demander une licence, rendez-vous à l'adresse <http://www.ibo.org/fr/contact-the-ib/media-inquiries/for-publishers/guidance-for-third-party-publishers-and-providers/how-to-apply-for-a-license>.

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 que medie la autorización escrita del IB.

Además, la licencia vinculada a este producto prohíbe el uso con fines comerciales 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— no está permitido y estará sujeto al otorgamiento previo de una licencia escrita por parte del IB. En este enlace encontrará más información sobre cómo solicitar una licencia: <http://www.ibo.org/es/contact-the-ib/media-inquiries/for-publishers/guidance-for-third-party-publishers-and-providers/how-to-apply-for-a-license>.

Section A markbands

Marks	Level descriptor
0	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 localization 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 localization of function related to one relevant study.

Responses should describe localization of function, clearly indicating how a specific area of the brain is, or specific areas are, involved in behaviour or cognition.

Candidates should refer to an appropriate study that is relevant to the biological approach.

Examples of studies could include but are not limited to:

- localization of speech production/understanding (Wernicke, 1900; Broca, 1861)
- the role of the hippocampus in episodic, semantic memory or spatial memory (Corkin, 1997; Maguire, 2000)
- the role of the amygdala in aggression (Matthies *et al.*, 2012) or memory (McGaugh and Cahill, 1995; Sharot *et al.*, 2007)
- role of the prefrontal lobe in decision making (Bechara, 1999).

If a candidate describes localization of function with reference to more than one study, credit should be given only to the first study.

If a candidate describes a relevant study, but localization of function and its link to the study is not explicitly described, up to a maximum of [4] should be awarded.

If a candidate addresses localization of function but does not refer to an appropriate study, up to a maximum of [5] should be awarded.

Cognitive approach to understanding behaviour

2. Describe **one** study investigating reconstructive memory.

[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 investigating reconstructive memory.

The description of the study should include the aim, procedure and results of the study. The description should explicitly demonstrate conceptual understanding of reconstructive memory.

Examples of appropriate studies could include but are not limited to:

- Bartlett (1932), Brewer and Treyens (1981) on the role of schema
- Neisser and Harsh (1992); Loftus and Pickerell (1995); Shaw and Porter (2015) on reconstruction of autobiographical memory
- Loftus (1993) and Loftus and Palmer’s (1974) studies on eyewitness memories
- Yuille and Cutshall’s (1986) study that argued that in highly emotional situations, memories may not be reconstructed or open to distortion.

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

If a candidate describes or explains a theory of reconstructive memory – for example, the role of schema or emotion on memory – but does not refer to an appropriate study, apply the markbands up to a maximum of **[4]**.

Sociocultural approach to understanding behaviour

3. Explain **one** cultural dimension with brief 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 cultural dimension.

Cultural dimensions may include, but are not limited to:

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

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

Candidates could explain the chosen cultural dimension generally, such as it is the effect of a culture on the beliefs and values of a society, or in a more detailed manner with explanations based on social mobility, agricultural versus urban, democratic principles, economic stability, etc. Both explanations are equally acceptable.

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

If a candidate describes a relevant study, but a cultural dimension is not explained, up to a maximum of **[4]** should be awarded.

If a candidate explains one cultural dimension without reference to a study, up to a maximum of **[6]** 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 of pheromones on 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 influence of pheromones on human behaviour.

Candidates may address the effect of pheromones in relation to specific aspects of human behaviour or address behaviour in general. Both approaches are equally acceptable. Behaviours may include: attraction, judgments of attractiveness, maternal behaviour toward infants, sociosexual behaviours (kissing, dating, sexual intercourse, etc.)

Candidates may address the ambiguity of research into human 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:

- McClintock's (1971) study on menstrual periods of women who lived together
- Black and Biron's (1982) study on judgments of attractiveness
- Lundstrom and Olsson's (2005) study on effects of androstadienone on women's attraction to men
- Hare *et al.*'s (2017) study on the ability of androstadienone and estratetraenol to signal gender and attractiveness
- Cutler's (1998) study on sexual behaviour in men
- Zhou *et al.*'s (2014) study on the effects of androstadienone and estratetraenol on the assignment of gender to animated figures.
- Wedekind *et al.* (1995) investigating mate preference based on genetic makeup in relation to immune system functioning
- Doucet's *et al.*'s (2009) study on maternal behaviour.
- Saxton *et al.*'s (2008) study on how androstadienone modulates women's attributions of men's attractiveness.

Discussion may include, but is not limited to:

- pheromone effects are dependent on social and psychological context
- pheromones appear to affect behaviour by altering psychological state, not by triggering fixed responses
- pheromones affect men and women differently
- methodological and ethical considerations, including the ambiguity of research evidence
- application of empirical findings including evidence for/against the role of vomeronasal and olfactory sense.

Animal research (*eg* Bind *et al.*, 2013; Wyatt, 2003) 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. Discuss **one or more** biases in thinking and/or decision-making.

[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 biases in thinking and/or decision-making.

Thinking and decision-making are closely related cognitive processes and candidates do not need to make a distinction between the two.

Candidates may address examples of biased thinking and/or decision-making in relation to specific aspects of human behaviour or address behaviour in general. Both approaches are equally acceptable.

Examples of biased thinking and/or decision-making may include, but are not limited to:

- specific biases (eg confirmation, optimism, selective attention)
- illusory correlation
- effects of framing
- heuristics (eg anchoring, availability, representativeness)

Examples of research studies may include, but are not limited to:

- Chapman and Chapman (1969); Stone *et al.* (1997) on confirmation bias
- Englisch and Mussweiler (2001); Strack and Mussweiler (1997) on anchoring bias
- Hamilton and Gifford (1976); Snyder and Swann (1978); Song and Schwarz (2007) on illusory correlation
- Tversky and Kahneman (1981) on framing effects
- Zebrowitz and McDonald (1991); Verhulst *et al.* (2010); Palmer and Peterson (2012) on halo effect

Discussion may include, but is not limited to:

- Applications of findings – for example, in marketing or in understanding health-related behaviour
- Cultural and gender differences in cognitive biases
- Difficulties in studying cognitive processes – eg isolation of variables and measuring cognition; artificial nature of experimental research
- Explanations of why cognitive biases occur – eg linking to Dual Process Theory

Candidates may address one bias in order to demonstrate depth of knowledge, or may address a larger number of biases in order to demonstrate breadth of knowledge. Both approaches are equally acceptable.

6. Evaluate social identity theory, with reference to **one or more** studies. **[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 behaviour
- the productivity of the theory in generating psychological research
- methodological, cultural and gender considerations
- contrary findings or explanations
- applications of the theory.

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.
