

# 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**

<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. Describe the effect of **one** neurotransmitter on human 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 the effect of one neurotransmitter on human behaviour in relation to one relevant study.

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

- the effect of serotonin in depression (Coppen, 1967) or prosocial behaviour (Crockett *et al.*, 2010)
- the effect of acetylcholine in memory (Antonova, 2011, Rogers and Kesner, 2003)
- the effect of dopamine in addiction (Volkow *et al.*, 2004; Berridge and Kringelbach, 2009) or attraction (Fisher, Aron and Brown, 2005)
- the effect of noradrenaline (norepinephrine) in attention (Bunsey and Strupp, 1995; Bymaster *et al.*, 2002).

Animal research may be used to describe an effect of one neurotransmitter, but the response must then be linked to human behaviour. If there is no explicit link to human behaviour, a maximum of **[6]** should be awarded.

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

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

If a candidate describes the effect of one neurotransmitter 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 the effect of the neurotransmitter, up to a maximum of **[4]** 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 Harsch (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. Outline social identity theory with reference to **one** relevant study.

**[9]**

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

The command term “outline” requires candidates to give a brief account or summary of social identity theory in relation to one relevant study.

Responses should identify the key concepts of social identity theory which include, but are not limited to:

- social categorization (in-group/out-group)
- social comparison
- positive in-group distinctiveness.

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).

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

If a candidate outlines social identity theory without reference to a relevant study, up to a maximum of **[5]** should be awarded.

If a candidate only describes a study related to social identity theory but does not outline the 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.

<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.

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 **one or more** techniques used to study the brain in relation to 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 way in which techniques are used to study the brain in relation to behaviour

Brain imaging techniques include, but are not limited to:

- fMRI
- MRI
- EEG
- ERP
- CAT/CT
- PET
- Post mortem

Relevant studies include, but are not limited to:

- Corkin (1997) using MRI to investigate the effect of damage to HM’s medial temporal lobes and the effect on memory formation
- Brefczynski-Lewis *et al.* (2007) using fMRI to investigate the effect of meditation on the brain
- Maguire *et al.* (2000) using MRI scans to investigate neuroplasticity in taxi drivers
- Ogden (2005) using CT scans to investigate the effect of brain damage on hemineglect
- Bert *et al.* (2011) using PET/CT in diagnosis of dementia
- Fisher, Aron and Brown (2005) using fMRI to investigate dopamine and love
- Draganski *et al.* (2004) using MRI to investigate the effects of learning juggling on the brain.

Discussion may include, but is not limited to:

- how brain imaging techniques have improved our understanding of the relationship between physiological factors and behaviour
- the reasons why different technologies are used
- evaluation of the techniques
- ethical and methodological considerations in the use of the techniques.

The focus of the response should be on the discussion of how the techniques are used to study the brain. Although an understanding of how the technique works may be beneficial, it is not required for marks in the top band.

Candidates may discuss one brain imaging technique in order to demonstrate depth of knowledge, or may discuss more than one brain imaging technique in order to demonstrate breadth of knowledge. Both approaches are equally acceptable.

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 affected by emotion such as intelligence, perception, memory or decision making.

Appropriate research may include, but is not limited to:

- Brown and Kulik (1977) study of flashbulb memory
- LeDoux (1996) theory of the emotional brain
- Nutt and Lam (2011), Fisher and Craik (1977), Overton (1964) studies of state-dependent memory
- Scherer (2001) study of appraisal theory.

Discussion may include but is not limited to:

- degree of empirical support
- methodological considerations
- application of findings
- contrary explanations or findings.

Candidates may discuss the influence of one emotion or emotion in general in order to demonstrate depth of knowledge, or may discuss different types of influences of emotion in order to demonstrate breadth of knowledge. 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 the influence of culture on behaviour and/or cognition.

[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 culture on behaviour and/or cognition.

It is not necessary for candidates to make a distinction between behaviour and cognition.

Appropriate research may include, but is not limited to:

- conformity (Bond and Smith, 1996; Kagitcibasi, 1984; Berry, 1967)
- attachment (Van Ijzendoorn and Kroonenberg, 1988; Sagi *et al.*, 1985)
- abnormal behaviour (Lin and Kleinman, 1988; Murphy, 1976)
- addictive behaviour (Raylu and Oei, 2004; Brady, 1995)
- memory strategies and sociocultural context (Rogoff and Waddel, 1982)
- stereotypes and memory (Allport and Postman, 1947)
- social identity's effect on formation of flashbulb memories (Luminet and Curci, 2009)
- the effects of education on encoding strategies (Cole and Scribner, 1974).

Discussion may include, but is not limited to:

- the effectiveness of the explanations of how culture influences behaviour/cognition
- methodological and gender considerations of relevant research
- empirical support
- contrary explanations or findings
- application of empirical findings.

Candidates may discuss a small number of cultural influences in order to demonstrate depth of knowledge, or may discuss a larger number of cultural influences in order to demonstrate breadth of knowledge. Both approaches are equally acceptable.

---