

Markscheme

May 2024

Psychology

Higher level

Paper 1

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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 **one** ethical consideration in **one** study investigating the relationship between the brain 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 ethical consideration in one study investigating the relationship between the brain and behaviour.

The ethical consideration described can be one that was adhered to in the study (what guidelines were or could be followed) or one that was breached (what guidelines were not followed).

Ethical considerations may include, but are not limited to:

- protection of participants
- issues of consent/assent
- debriefing
- right to withdraw from a study
- use of deception
- informed consent
- confidentiality
- anonymity.

Relevant studies may include, but are not limited to:

- Milner and Scoville’s (1957) case study on HM and localization of function.
- Feinstein et al.’s (2011) case study on SM and bilateral damage to the amygdala.
- Rogers and Kesner’s (2003) study on the role of acetylcholine in spatial memory in rats.
- Antonova et al.’s (2011) study on the role of acetylcholine on hippocampal activity in spatial memory.
- Sharot et al.’s (2007) study on amygdala activation and flashback memories.
- Maguire et al.’s (2000) study on hippocampal volume related to navigational skills.
- Raine et al.’s (1997) brain imaging study on prefrontal cortex and amygdala on behaviour.

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.

Cognitive approach to understanding behaviour

2. Outline **one** model in thinking and/or decision making 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 of one model of thinking and/or decision-making with reference to one relevant study.

Models of thinking and decision-making could include but are not limited to:

- dual-processing model explaining two systems of thinking, system 1 and, system 2.
- theory of reasoned action and theory of planned behaviour.

Relevant studies could include but are not limited to:

- Alter & Oppenheimer’s (2007) study on legibility of font and thinking
- Tversky & Kahneman’s (1974) studies on judgement under uncertainty
- English and Mussweiler (2001); Strack and Mussweiler (1997) on anchoring bias and decision making
- Bechara et al.’s (2000) study on the role of the vmPFC in decision making
- Albarracin et al.’s (2001) meta-analysis of theory of planned behaviour as a model of condom use.

If a candidate outlines one model of thinking and/or decision making without reference to a relevant study, up to a maximum of **[5]** should be awarded.

If a candidate describes a relevant study without outlining one model of thinking and/or decision making, up to a maximum of **[4]** should be awarded.

If a candidate outlines more than one model of thinking and/or decision-making, credit should be given only to the first one.

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

Sociocultural approach to understanding behaviour

3. Describe assimilation 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 assimilation, with reference to one relevant study.

Assimilation is when an individual abandons their original culture and adopts the cultural behaviours and values of a new culture.

Candidates could either describe assimilation and its role in acculturation **or** describe it as one acculturation strategy. Both approaches are equally acceptable.

Relevant studies may include, but are not limited to:

- Torres et al.’s (2012) study on the correlation of integration and disorientation in Latino-Americans
- Lueck and Wilson’s (2010) study on predicting acculturative stress in Asian immigrants and Asian Americans
- Wang et al.’s (2010) study on dimensions on acculturation and positive psychological functioning in Cuban American university students
- Shah et al.’s (2015) study on obesity in South Asian workers in the United Arab Emirates
- Miranda and Matheny’s (2000) study on socio-psychological predictors of acculturative stress among Latino adults
- Berry et al.’s (1987) study on acculturative stress across cultures.

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

If a candidate refers to a relevant study but does not describe assimilation, up to a maximum of **[4]** should be awarded.

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

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 **one or more** neurotransmitters and their effect(s) 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 neurotransmitters and their effect(s) on behaviour.

Behaviour in this instance may include memory, emotion, motivation, or any other accepted behaviour.

Neurotransmitters and relevant effects on behaviour include, but are not limited to:

- the effect of acetylcholine on memory
- the effect of serotonin on prosocial behaviour
- the effect of dopamine on motivation and the experience of pleasure.

Candidates may use animal studies to discuss neurotransmitters as long as the discussion is explicitly linked to human behaviour.

Relevant studies may include, but are not limited to:

- Rogers and Kesner’s (2003); Antonova et al.’s (2011) studies on the role of acetylcholine in memory
- Crockett et al.’s (2010) study on the effect of serotonin on prosocial behaviour
- Passamonti et al.’s (2012) study on the effect of low serotonin on the ability of the prefrontal cortex to control emotional responses to anger generated by the amygdala
- Fisher, Aron, and Brown’s (2005) study on the role of dopamine in romantic love.

Discussion may include, but is not limited to:

- difficulties in carrying out research related to neurotransmitters
- generalizability of animal research to human behaviour
- ethical considerations in research into the effects of neurotransmitters
- the use of a reductionist approach to explain complex human behaviours
- the interaction of environmental and biological factors in behaviour
- practical applications of our understanding of the effect of neurotransmitters on behaviour, such as in the treatment of psychological disorders.

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

5. Discuss the influence of emotion on **one or more** cognitive processes. [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 or more 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
- Nutt and Lam’s (2011); Fisher and Craik’s (1977); studies of state-dependent 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.

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 cognitive process in order to demonstrate depth of knowledge or may discuss more than one cognitive process in order to demonstrate breadth of knowledge. Both approaches are equally acceptable.

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

6. Discuss **one or more** research methods used to study the influence of globalization 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 research methods used to study the influence of globalization on behaviour.

Relevant research methods may include, but are not limited to:

- case studies
- experiments
- surveys (interviews and questionnaires)
- correlational studies

Relevant research may include, but is not limited to:

- Norasakkunkit and Uchida's (2014) correlational study on globalisation and mental health
- Becker *et al.*'s (2002) natural experiment on the effects of globalization on mental health.
- Adams' (2003) survey on cultural values in the USA and Canada converging over time
- Buchan *et al.*'s (2009) experiment on globalization and cooperation
- Gupta's (2011) survey on the effect of globalization in consumer behaviour
- Ogihara and Uchida's (2014) survey on the effects of globalization on subjective well-being
- Novotny and Polonsky's (2011) correlational study on the influence of globalization on attitudes towards minority groups.

Discussion of research methods may include, but is not limited to:

- why the method(s) was/were selected and the appropriateness of the method(s) including strengths and limitations
- possible theoretical assumptions and/or biases in relation to the chosen method
- the issues of validity and reliability
- the generalizability of findings
- the use of alternative/additional methods (triangulation).
- ethical considerations.

Candidates may discuss one research method to demonstrate depth of knowledge or may discuss more than one research method to demonstrate breadth of knowledge. Both approaches are equally acceptable.
