



MARKSCHEME

May 2013

PSYCHOLOGY

Higher Level and Standard Level

Paper 1

*This markscheme is **confidential** and for the exclusive use of examiners in this examination session.*

*It is the property of the International Baccalaureate and must **not** be reproduced or distributed to any other person without the authorization of the IB Assessment Centre.*

SECTION A

Biological level of analysis

1. Outline *two* effects of neurotransmission on human behaviour.

[8 marks]

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

The command term “outline” requires candidates to give a brief account or summary that clearly illustrates two effects of neurotransmission on human behaviour.

Examples of responses include, but are not limited to:

- the role of serotonin in depression
- the role of acetylcholine in memory
- the role of dopamine in addiction
- the role of noradrenaline (norepinephrine) in attention.

Examples could include two different effects of one neurotransmitter or the effects of two different neurotransmitters.

Studies may be presented, but the focus of the response should be on the effects of neurotransmission and not on a description of the study.

If a candidate outlines more than two effects of neurotransmission, credit should be given only to the first two effects outlined.

If a candidate outlines only one effect of neurotransmission, apply the markbands up to a maximum of **[4 marks]**.

Section A markbands

Marks	Level descriptor
0	The answer does not reach a standard described by the descriptors below.
1 to 3	There is an attempt to answer the question, but knowledge and understanding is limited, often inaccurate, or of marginal relevance to the question.
4 to 6	The question is partially answered. Knowledge and understanding is accurate but limited. Either the command term is not effectively addressed or the response is not sufficiently explicit in answering the question.
7 to 8	The question is answered in a focused and effective manner and meets the demands of the command term. The response is supported by appropriate and accurate knowledge and understanding of research.

Cognitive level of analysis

2. Explain how *one* principle that defines the cognitive level of analysis may be demonstrated in *one* example of research (theory or study). *[8 marks]*

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

The command term “explain” requires candidates to give a detailed account of an appropriate principle and show how this principle is clearly demonstrated in a theory or study relevant to the cognitive level of analysis.

Acceptable principles include, but are not limited to:

- mental processes can be scientifically investigated
- internal processes are important mediators between stimuli and responses
- mental representations guide behaviour
- mental processing can be compared to computer function
- cognitive processes are influenced by social and cultural factors
- biological factors may affect cognitive processes.

If the principle used is that sociocultural or biological factors can affect cognitive processes the focus of the research should be on the cognitive principle – that is, if a study or theory that is more typically linked to the biological level of analysis or the sociocultural level of analysis is used, the answer must focus on the cognitive aspects of the research. For example, if using the HM study, candidates should focus on memory aspects not physiological ones

After briefly outlining the principle and giving a brief summary of one study or theory, candidates should make an explicit link between the research and the principle. If a relevant principle and research are identified but are not explicitly linked, then apply the markbands up to a maximum of *[6 marks]*.

If a candidate explains a principle without making reference to research, apply the markbands up to a maximum of *[4 marks]*.

If a candidate only describes a study or theory relevant to the cognitive level of analysis, apply the markbands up to a maximum of *[3 marks]*.

If a candidate explains more than one principle and/or uses more than one example of research, credit should be given only to the first explanation of the first principle and to the first example demonstrating that principle.

Section A markbands

Marks	Level descriptor
0	The answer does not reach a standard described by the descriptors below.
1 to 3	There is an attempt to answer the question, but knowledge and understanding is limited, often inaccurate, or of marginal relevance to the question.
4 to 6	The question is partially answered. Knowledge and understanding is accurate but limited. Either the command term is not effectively addressed or the response is not sufficiently explicit in answering the question.
7 to 8	The question is answered in a focused and effective manner and meets the demands of the command term. The response is supported by appropriate and accurate knowledge and understanding of research.

Sociocultural level of analysis

3. Describe *one* cultural dimension of human behaviour.

[8 marks]

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

The command term “describe” requires candidates to give a detailed account of a specific cultural dimension of human behaviour.

Cultural dimensions may include, but are not limited to:

- individualism versus collectivism
- power distance
- long-term versus short-term orientation (Confucian dynamism)
- masculinity versus femininity
- monochronous versus polychronous time orientation
- uncertainty avoidance.

Strong responses will have a well developed description of 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 (Oyerman, 2002). Candidates may, but are not required to, describe how the cultural dimension affects behaviour.

If a candidate identifies an appropriate dimension, but then simply describes a study of that cultural dimension, apply the markbands up to a maximum of [4 marks].

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

Section A markbands

Marks	Level descriptor
0	The answer does not reach a standard described by the descriptors below.
1 to 3	There is an attempt to answer the question, but knowledge and understanding is limited, often inaccurate, or of marginal relevance to the question.
4 to 6	The question is partially answered. Knowledge and understanding is accurate but limited. Either the command term is not effectively addressed or the response is not sufficiently explicit in answering the question.
7 to 8	The question is answered in a focused and effective manner and meets the demands of the command term. The response is supported by appropriate and accurate knowledge and understanding of research.

Section B assessment criteria**A — Knowledge and comprehension**

Marks	Level descriptor
0	The answer does not reach a standard described by the descriptors below.
1 to 3	The answer demonstrates limited knowledge and understanding that is of marginal relevance to the question. Little or no psychological research is used in the response.
4 to 6	The answer demonstrates limited knowledge and understanding relevant to the question or uses relevant psychological research to limited effect in the response.
7 to 9	The answer demonstrates detailed, accurate knowledge and understanding relevant to the question, and uses relevant psychological research effectively in support of the response.

B — Evidence of critical thinking: application, analysis, synthesis, evaluation

Marks	Level descriptor
0	The answer does not reach a standard described by the descriptors below.
1 to 3	The answer goes beyond description but evidence of critical thinking is not linked to the requirements of the question.
4 to 6	The answer offers appropriate but limited evidence of critical thinking or offers evidence of critical thinking that is only implicitly linked to the requirements of the question.
7 to 9	The answer integrates relevant and explicit evidence of critical thinking in response to the question.

C — Organization

Marks	Level descriptor
0	The answer does not reach a standard described by the descriptors below.
1 to 2	The answer is organized or focused on the question. However, this is not sustained throughout the response.
3 to 4	The answer is well organized, well developed and focused on the question.

SECTION B**4. Discuss how *and* why *two* research methods are used at the biological level of analysis.****[22 marks]**

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

The command term “discuss” requires candidates to offer a considered and balanced review, supported by appropriate evidence, of the use of two research methods that includes a range of arguments and/or factors. Although a discussion of both *how* and *why* is required, it does not have to be evenly balanced to gain high marks.

Research methods used in the biological level of analysis could include experiments, case studies, observations, correlational studies, neuroimaging.

Although examples of animal research may be discussed, the use of animals in and of itself is not a research method. Responses should focus on the method used in the study and not discuss the choice to use animals as the sample.

Discussion about *how* the method is used might refer to key features of the method as well as how the method was used in specific research. For example, experimental studies may identify the sampling and allocation procedures, the independent and dependent variables, and the way in which extraneous variables were controlled.

Discussion about *why* the method is used might refer to the appropriateness of the method, issues of validity and reliability, sample choice and size, ease and cost of the procedure, and the generalizability of findings. Candidates may address the strengths (and limitations) of the method as well as why it reflects the principles of the biological level of analysis, that is, candidates could make clear how the selected research methods underpin one or more principles of the level of analysis.

If a candidate discusses more than two research methods, credit should be given only to the first two discussions.

If a candidate discusses only one research method, apply the markbands up to a maximum of **[11 marks]**.

5. Evaluate *one* theory of how emotion may affect *one* cognitive process. [22 marks]

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

The command term “evaluate” requires that candidates address the strengths and limitations of one theory demonstrating the influence of emotion on one cognitive process. Although a discussion of both strengths and limitations is required, it does not have to be evenly balanced to gain high marks.

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

Examples of theories include, but are not limited to:

- Brown and Kulik’s flashbulb memory theory
- Bower’s theory of state-dependent cues
- Frank’s emotional precommitment model of decision making
- Loftus on weapon focus
- intrusive memory theory.

Evaluation of the selected theory includes, but is not limited to:

- degree of empirical support
- methodological considerations
- contrary findings or explanations
- involvement of biological or social factors
- accuracy and clarity of the concepts
- application of the theory.

If a candidate evaluates more than one theory, credit should be given only to the first evaluation, unless the other theory or theories are clearly used to evaluate the main theory; for example, used to illustrate the strengths and/or limitations of the main theory.

If a candidate evaluates one theory as it relates to more than one cognitive process, credit should be given only to the discussion of the first cognitive process.

If a candidate discusses only strengths or only limitations, the response should be awarded up to a maximum of [5 marks] for criterion B, critical thinking, and up to a maximum of [2 marks] for criterion C, organization. Up to full marks may be awarded for criterion A, knowledge and comprehension.

6. Evaluate social identity theory.**[22 marks]**

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.

Responses may refer to Tajfel’s studies, Sherif *et al.*’s Robber’s Cave study (1961), Cialdini *et al.*’s studies or any other relevant studies on intergroup behaviour and social categorization. Studies may be used to support or contest the theory as long as the focus of the response is on the evaluation of social identity theory, and not just on the evaluation of the studies. Responses that only evaluate the studies and not the theory directly should receive no more than mid-range marks for criterion B, critical thinking.

Evaluation may include, but is not limited to:

- methodological considerations of research studies
- the effectiveness of the theory in explaining and predicting group behaviour
- biological support (for example, Fiske's fMRI studies)
- social identity theory as a reductionist approach to explaining group behaviour
- applications of the theory; for example, in education, crowd control or in the workplace.

If a candidate discusses only strengths or only limitations, the response should be awarded up to a maximum of **[5 marks]** for criterion B, critical thinking, and up to a maximum of **[2 marks]** for criterion C, organization. Up to full marks may be awarded for criterion A, knowledge and comprehension.
